

Dial Corporation

Final Closure Report



The Dial Corporation Facility South Gate, California

VOLUME I

Text, Tables, Figures, Plates, Appendices A, D, E, and F

May 1997

Document Number 2277-006



FINAL CLOSURE REPORT

THE DIAL CORPORATION FACILITY, SOUTH GATE, CALIFORNIA

Prepared for: Dial Corporation

Prepared by: ENSR

1220 Avenida Acaso Camarillo, California 93012 Contact: Michael Flack (805) 388-3775

Reference No.: 2277-006

May 1997



TABLE OF CONTENTS

			Page
LICT	. OE 4	ABBREVIATIONS	v
			•
EXE	CUTI	VE SUMMARY	ES1
1.0	INTE	RODUCTION	1
	1.1	CLOSURE AND POST-CLOSURE PROGRAM OBJECTIVES	2
	1.2	CLOSURE AND POST-CLOSURE PROGRAM SCOPE	2
2.0	BAC	KGROUND	4
	2.1	SITE LOCATION AND HISTORY	4
	2.2	HYDROGEOLOGIC SETTING	5
		2.2.1 Regional Hydrogeology	
		2.2.2 Site Soil Stratigraphy	6
	_	2.2.3 Groundwater Occurrence and Flow	6
	2.3	PREVIOUS ASSESSMENT PROGRAMS	7
	2.4	SOIL VAPOR EXTRACTION: OLD GARAGE AND LABORATORY	8
	2.5	DODECYLBENZENE HEALTH RISK ASSESSMENT	9
	2.6	CLOSURE AND POST-CLOSURE PROGRAMS	9
3.0	CLO	SURE AND POST-CLOSURE PROGRAM AND PROCEDURES	11
	3.1	CLOSURE PROGRAM	11
		3.1.1 Excavation Sampling Procedures	12
		3.1.2 Hand Auger Sampling Procedures	12
	3.2	CLOSURE PROGRAM REMOVAL ACTIONS	13
	3.3	POST-CLOSURE ASSESSMENT	13
		3.3.1 Geoprobe Sampling Procedures	14
		3.3.2 Hollow-Stem-Auger Borings and Wells	15
	3.4	DATA EVALUATION METHODS	17
4.0	CLC	SURE PROGRAM RESULTS	19
	4.1	PETROLEUM HYDROCARBONS	19
	4.2	PETROLEUM AROMATIC COMPOUNDS	20
	4.3	VOLATILE ORGANIC COMPOUNDS	20
	4.4	FORMALDEHYDE	21



TABLE OF CONTENTS (Continued)

				Page
	4.5			21
	4.6	PHOSP	HATE, CHLORIDE AND AMMONIA	22
	4.7	METHY	LENE BLUE ACTIVE SUBSTANCES (MBAS)	22
5.0	POST-CLOSURE SAMPLING RESULTS			
	5.1	RESULT	TS OF POST-CLOSURE SOIL SAMPLING	24
		5.1.1	Petroleum Hydrocarbons	24
		5.2.2	Petroleum Aromatic Compounds	25
		5.2.3	Volatile Organic Compounds	25
		5.2.4	Formaldehyde, Ammonia and MBAS	26
	5.3	RESULT	TS OF GROUNDWATER SAMPLING	27
6.0	CONCLUSIONS			
	6.1	1 SUBSURFACE SOIL CONDITIONS		
		6.1.1	Petroleum Hydrocarbons	29
		6.1.2	Petroleum Aromatic Compounds	29
		6.1.3	Volatile Organic Compounds	30
		6.1.4	Formaldehyde	31
		6.1.5	pH	31
		6.1.6	Phosphates, Ammonia and Chloride	32
		6.1.7	MBAS	32
	6.2	GROUN	IDWATER	32
7.0	SUM	MARY C	F FINDINGS	35
8.0	REF	ERENCE	S CITED	37



TABLES

- Table 1 Analytical Results for Groundwater Samples from Pre-Closure and the Post-Closure Assessments
- Table 2 Closure Sampling Schedule: Sumps Drains and Clarifiers
- Table 3 Closure Sampling Schedule: Underground- and Above-Ground Tanks and Areas of Concern
- Table 4 Post-Closure Sampling and Analyte Schedule
- Table 5 Screening Level Criteria and PRGs for VOCs and Petroleum Hydrocarbons
- Table 6 Analytical Results for Closure Samples: Sumps, Drains and Clarifiers
- Table 7 Analytical Results for Closure Samples: Underground and Above-Ground Tanks and Areas of Concern
- Table 8 Analytical Results for Soil Samples: Post-Closure Assessment Program

FIGURES

- Figure 1 Site Location Map
- Figure 2 Groundwater Gradient Map and Results of Post Closure Sampling
- Figure 3 Site Plan Showing Closure Sample Locations and Results of TPH Analysis
- Figure 4 Site Plan Showing Closure Sample Locations and Results of Analysis for Volatile Organic Compounds
- Figure 5 Site Plan Showing Closure Sample Locations and Results of Analysis for Formaldehyde
- Figure 6 Site Plan Showing Closure Sample Locations and Results of Analysis for pH
- Figure 7 Site Plan Showing Closure Sample Locations and Results of Chloride Analysis
- Figure 8 Site Plan Showing Closure Sample Locations and Results of MBAS Analysis
- Figure 9 Post Closure Analytical Results: Petroleum Hydrocarbons
- Figure 10 Confirmatory Soil Borings: SVE Closure, Old Garage and Laboratory
- Figure 11 Post Closure Assessment Data: Volatile Organic Compounds
- Figure 12 Post Closure Assessment Data: Formaldehyde, Ammonia and MBAS



PLATES

		Plate
Site Plan Show	wing Pre-Closure Assessment Sampling Locations	1
Site Plan Sho	wing Closure Sampling Locations	2
Site Plan Show	wing Post-Closure Sampling Locations	3
	•	
APPENDIX		
Α	LIMITATIONS	
В	CERTIFIED ANALYTICAL LABORATORY REPORTS: CLOSURE SAMPLE	ES
C	CERTIFIED ANALYTICAL LABORATORY REPORTS:	
	POST-CLOSURE SAMPLES	
D	WASTE MANIFESTS	
E	EXPLORATORY BORING LOGS AND WELL DETAILS	
F	SCREENING LEVEL ESTIMATES AND CALCULATIONS	



LIST OF ABBREVIATIONS

AOC Areas of Concern

AGTS Aboveground Storage Tanks

BTEX Benzene, Toluene, Xylenes and Ethylbenzene

COCs Constituents of Concern

DWR Department of Water Resources

HCHO formaldehyde

LUFT Leaking Underground Fuel Tank

LACDPW Los Angeles County Department of Public Works

MBAS Methylene Blue Active Substances

MCLs maximum contaminant levels for a drinking water resource

ml milliliters mg milligrams

mg/l milligrams per litre
rng/kg milligrams per kilogram
PCE Perchloroethylene

pH log (base 10) of the hydrocarbon ion concentration

ppmv parts per million by volume PRGs Preliminary Remediation Goals

RWQCB The Regional Water Quality Control Board-Los Angeles Region

SESOIL Seasonal Soil Compartmental Model

TEG The Environmental Group

TCE trichloroethene or trichloroethylene
TPH Total Petroleum Hydrocarbons

TSS Total Settleable Solids

U.S. EPA United States Environmental Protection Agency

USTs Underground Storage Tanks
VOCs Volatile Organic Compounds
WMUs waste management units



1.0 INTRODUCTION

This report presents the results of a closure and post-closure assessment program for the former Dial Corporation (Dial) facility at 9300 Rayo Avenue, South Gate, California. The closure sampling and analytical program was conducted from September to October 1996, consistent with the scope and procedures outlined in the Closure Plan dated July 1, 1996 (EMCON, July 1, 1996) and the Closure Plan Addendums of July 30, and September 9, 1996 (Fugro, July 30, and September 9, 1996). The Regional Water Quality Control Board-Los Angeles Region (RWQCB) approved the closure plan dated June 19 and addendum dated July 30, 1996, in a written letter to Dial dated August 8, 1996. The additional addendum was verbally approved by the RWQCB on September 19, 1996. The shallow soil sampling program was initiated in September 1996, during a site demolition program to investigate and "close" waste management units (WMUs) and aboveground storage tank (AGT) areas as they were removed during site demolition.

An interim closure assessment report was forwarded to the RWQCB on December 16, 1996, to present the majority of the closure program data gathered through October and to allow the RWQCB to review and approve an additional "post-closure" assessment program. The postclosure sampling program was proposed by Fugro (December 16, 1996) to assess additional areas of concern (AOC) and chemicals that were not previously identified by past assessment programs and to complete assessment in areas not fully delineated during the closure sampling program. To provide a basis for identification of the AOCs, analytical data from the closure sampling program were compared to the U.S. Environmental Protection Agency (U.S. EPA) Region IX, Preliminary Remediation Goals (PRGs), and calculations of screening level values as provided in the RWQCB "Interim Assessment and Site Cleanup Guidebook" (RWQCB, May 1996). The post-closure assessment program included drilling 16 exploratory soil borings to complete the lateral and vertical delineation of volatile organic compounds (VOCs), petroleum hydrocarbons, formaldehyde, methylene blue active substances (MBAS) and ammonia identified from closure sampling through October 1996. The RWQCB (December 24, 1996) approved the additional assessment program outlined in the interim closure assessment report with conditions that resulted in a 3-fold expansion of the proposed boring program. The post-closure sampling effort was initiated on February 6, and completed on February 25, 1997.

This final closure report expands upon and supersedes the previous interim submittal (Fugro, December 16, 1996), by presenting the post-closure data and the certified analytical laboratory reports and waste manifests derived from the closure sampling program. This report was prepared using generally accepted environmental consulting principles and practices within the limitations described in Appendix A.



EXECUTIVE SUMMARY

The Dial Corporation (Dial) facility at 9300 Rayo Avenue was used in the manufacturing of soap and bleach from the late 1920s until November 1991. Site assessment programs conducted from 1992 through 1994 identified chemicals of concern (COCs) in soil and groundwater that included petroleum hydrocarbons and halogenated volatile organic compounds (VOCs). The Regional Water Quality Control Board-Los Angeles Region (RWQCB) has provided oversight since 1995, pursuant to a voluntary oversight contract with Dial. Remedial action conducted during 1995 addressed gasoline- and VOC-impacted soils in the area of the old garage and laboratory. In 1996, the facility was demolished and all subsurface structures and piping were removed. A closure program for clarifiers, sumps, drains, aboveground tanks (AGTs) and underground storage tanks (USTs) was completed in October 1996. A post-closure assessment program was performed in February 1997, to assess additional areas of concern not previously identified and to complete assessment in areas not fully delineated during the closure program.

During the closure and post-closure programs, 251 soil samples were collected and analyzed for COCs. Inclusive of prior assessment programs, 468 soil samples have been analyzed. Three new groundwater monitoring wells were installed during the post-closure program, bringing the total number of wells onsite to 8. Seven groundwater sampling events have been performed since April 1992 to assess groundwater quality beneath the site.

The lateral and vertical extent of soil impacted by COCs has been delineated to numerical criteria established by the EPA and RWQCB for the protection of human health at industrial sites and shallow groundwater. Soil samples collected from closure and post-closure assessment programs did not contain residual COCs at concentrations in excess of criteria established by EPA to protect human health at industrial sites. Petroleum hydrocarbons in the C₁₃ to C₂₂ range and MBAS in shallow soil samples, collected less than 10 feet bgs, were the most frequently detected COCs at concentrations in excess of RWQCB screening level criteria. The groundwater sampling data does not suggest these COCs have significantly affected water quality beneath the site.

The largest area of petroleum-hydrocarbon-impacted soil (primarily dodecylbenzene) is present in the southeastern corner of the site to a depth of up to 30 feet bgs. A risk assessment showed no significant human health exposure, and that these petroleum hydrocarbons will not leach from the soil to the groundwater.

The lateral extent of groundwater impacted by benzene, toluene, ethylbenzene and xylenes (BTEX) has been delineated onsite. Since April 1992, the occurrence of BTEX and VOCs in the groundwater has remained relatively stable and has been in recent decline. In general, no VOC concentration reported was above numerical criteria protective of a drinking water resource. The distribution of VOCs in groundwater samples supports a prior hypothesis that groundwater has been impacted by an offsite source.

In consideration of data from closure and post-closure assessment programs, risk assessment and remedial actions, a "No Further Action" letter is requested of the RWQCB for the soils and groundwater at the subject site.



1.1 CLOSURE AND POST-CLOSURE PROGRAM OBJECTIVES

The objectives of the closure and post-closure programs were to delineate the nature and extent of constituents of concern (COC) identified from previous assessments, verify completion of remedial efforts to mitigate petroleum hydrocarbon- and VOC-impacted soil by soil vapor extraction (SVE) in the area of the old garage and laboratory, delineate the extent of petroleum hydrocarbon-impacted groundwater beneath the site, and investigate and close former WMUs (i.e., clarifiers, sumps and drains) and AGT areas (EMCON, July 1, 1996). As provided in the Closure Plan, and from comments and conditions given by the RWQCB, the following are target analytes in soil and groundwater:

- Total Petroleum Hydrocarbons (TPH [C4 to C23+ range]);
- Benzene Toluene, Xylenes and Ethylbenzene (BTEX);
- Volatile Organic Compounds (VOCs),
 specifically, 1,2-dichloroethane (1,2-DCA) and chloroform;
- Formaldehyde;

- Soil pH;
- Phosphate;
- Chloride;
- Ammonia;
- MBAS

In addition to the investigation of the above-listed COCs, the closure program also included removal of a former underground fuel storage tank (UST) that was closed in-place below the southwest corner of former Building 8, and excavation of soils impacted by an apparent release of acid in the area of Building 8.

1.2 CLOSURE AND POST-CLOSURE PROGRAM SCOPE

The following activities were conducted to achieve the objectives of the closure program at the site:

- Sixty-two soil samples were collected with an excavator or backhoe for the closure of clarifiers, sumps and drains;
- Sixty-nine soil samples were collected using test pits or a hand auger to support the closure
 of former USTs, AGT areas and other AOCs, such as drum storage areas, oil storage areas
 and stained concrete:
- Three exploratory soil borings were drilled, and 36 soil samples were collected, to assess
 and verify completion of soil vapor extraction (SVE) and the mitigation of petroleum and
 VOC-impacted soil in the old garage and laboratory area;



- Sixteen exploratory soil borings were drilled, and 84 soil samples were collected, as part of
 post-closure assessment activity to assess previously unidentified AOCs, and the lateral
 and vertical extent of COCs below former WMUs and AGT areas. Two borings were drilled
 to gather data on the physical soil characteristics to support the risk assessment in area of
 dodecylbenzene-impacted soils;
- Three groundwater monitoring wells were installed on the site to assess the lateral extent of aromatic petroleum hydrocarbons identified from previous assessment activity.

An estimated 120 cubic yards (cy) of soil, generated as part of remedial excavations and closure of sumps and clarifiers were removed during the closure program and then transported to the TPS Technologies Soil Recycling facility in Adelanto, California.



2.0 BACKGROUND

The following summarizes the site history and results of previous assessment programs. Details and analytical data for Pre-Closure Assessment and Remedial Action Programs discussed below can be found in the following reports:

- Phase I Incorporated November 26, 1991, Phase I Environmental Assessment;
- EMCON, August 5, 1992, Phase II and III Subsurface Assessment Report;
- EMCON, April 9, 1993, Phase IV Site Assessment Report;
- EMCON, July 9, 1993, Analysis of Dodecylbenzene-Impacted Soil;
- EMCON, July 12, 1993, Soil Vapor Extraction Test Report (Old Garage and Laboratory);
- EMCON, January 1994, Dodecylbenzene Health Risk Assessment;
- EMCON, November 7, 1995, Offsite Weil Research;
- EMCON, February 23, 1996, Remediation Progress Update (December 1995);
- EMCON, May 2, 1996, City of South Gate Municipal Supply Wells Near the Dial Corporation Main Facility and South Parking Lot Sites;
- EMCON June 13, 1996, First Quarter, 1996 Progress Report
- EMCON, February 10, 1997, Dodecylbenzene Health Risk Assessment Addendum.

2.1 SITE LOCATION AND HISTORY

The property at 9300 Rayo Avenue is located in the City of South Gate and has been used in the manufacturing of soap and bleach products from the late 1920s until November 1991. The site was operated by the Purex Corporation through the mid-1980s, and thereafter, until operations were terminated in late 1991 by Dial. The site is bordered by industrial properties to the north and west and by a Los Angeles County Department of Water and Power easement to the south, and the Los Angeles River to the east (Figure 1). Information on the historical contents of the USTs and AGT, and the processes conducted in the building, is shown on Plates 1 through 3.

Site demolition operations performed by The Environmental Group (TEG), began in April and were concluded in November 1996. Asbestos containing materials were removed beginning in April, prior to building demolition and as discovered during demolition operations. Building structures, subsurface piping, WMUs, AGTs and foundations were excavated and removed. All



demolition materials were hauled offsite or sold as scrap. Concrete was excavated, steel rebar removed and crushed for use as backfill for foundation and underground structure excavations, and to provide additional borrow materials for grading operations. The site was graded roughly flat.

2.2 HYDROGEOLOGIC SETTING

The site is located within the Central Groundwater Basin of the Los Angeles Coastal Plain. The Central Basin is located northeast of the Newport-Inglewood Uplift, and is bounded by the Santa Monica Groundwater Basin on the west, the Hollywood Basin on the north, the Elysian Park-Repetto Hills on the northeast, and the Los Angeles-Orange County line on the southeast (DWR Bulletin 104, 1961).

2.2.1 Regional Hydrogeology

Named aquifers within the Basin below the site include the Exposition and Gage Aquifers within upper Pleistocene Lakewood Formation and the Lynwood, Silverado, and Sunnyside Aquifers of the lower Pleistocene San Pedro Formation (DWR Bulletin 104, 1961). The Bellflower Aquiclude, a mixture of fine-grained and sandy sediments within the Holocene Age alluvial deposits, is reported from the surface to a depth of approximately 70 to 80 feet below the ground surface (bgs) above the Exposition Aquifer. Water-bearing alluvial sediments above the Bellflower Aquiclude are assigned to the Semiperched Aquifer throughout the Central Groundwater Basin (DWR, Bulletin 104, 1961).

Data published by the Los Angeles County Department of Public Works indicates that regionally extensive groundwater beneath the site occurs at an elevation of approximately 10 feet above mean seal level in the Fall of 1988 (LACDPW, April 1988). Groundwater at this depth is contained within the Exposition Aquifer that is reported at an elevation of between 20 to 60 feet in the vicinity of the subject site (DWR Bulletin 104, 1961, Plates 10A and 11A). Based on a site elevation of approximately 105 feet above mean sea level, the corresponding depth to recognized regionally extensive groundwater within the Exposition Aquifer would be 95 feet bgs. Since monitoring began in April 1992, groundwater has been measured at depths of between 45 and 52 feet bgs, and flows to the south-southwest generally consistent with the southward course of the Los Angeles River.

The closest municipal well to the site, City of South Gate well #23 (State Well No. 3S/12W-06/03), is located approximately 1,000 feet south and downgradient of the former facility (Figure 1). This well was installed in 1953 to a total depth of 856 feet bgs and is perforated below 530 feet bgs in the Silverado Aquifer. The well was not installed with filter pack, and the seal reportedly extends from the surface to a depth of approximately 50 feet bgs. Several other municipal supply wells



located to the east and southwest are completed within the Silverado Aquifer. Severat of the these wells have been closed by the City of South Gate due to Perchloroethylene (PCE) impacts above state maximum contaminant levels. Volatile organic compounds have not been reported in well #23 downgradient of the site.

2.2.2 Site Soil Stratigraphy

The soil stratigraphy beneath the site varies locally, but can be divided generally into four zones above and below the water table to the total depth explored. Within the upper 20 to 30 feet of the soil column the soils are generally comprised of interlayered silty sand, silt and clay. The percentage of silt and clay in the upper zone is generally higher in the southwestern portion of the property within the upper zone to a depth of approximately 25 feet bgs. In the southwestern portion of the site clayey soils tend to be more plastic when encountered in the upper 5 to 10 feet of the soil profile. Vertical hydraulic conductivity was measured in two soil samples collected from borings EB-2 and EB-3, that were drilled in support of the risk assessment in the area of alkylate unloading sump (Plate 2). The soil samples collected from these two borings at a depth of 25 feet bgs, from a sandy clay interval, contained vertical hydraulic conductivities of 1.79 and 1.87 E-07 cm/sec.

Below the upper zone from depths of 30 to 35 and 40 feet bgs, is a uniformly sandy and silty sand interval. The zone varies in thickness locally and is comprised of poorly-grade, fine-grained sand and silty sand. Underlying this sandy interval is another zone of clay and silt that is present to a depth of up to 50 feet bgs. This interval has local silty sand interbeds, but is generally comprised of silt and clay.

The fourth zone encountered beneath the site comprises the majority of the saturated sediments and uniformly is characterized by silty and sandy soils to the total depth explored of 75 feet bgs. Although the upper 5 feet of the saturated zone is contained within the clayey and silty soils at depths of 45 feet bgs, the majority of the water-bearing sediments are contained within sandy and silty sand soils.

2.2.3 Groundwater Occurrence and Flow

Groundwater beneath the site was measured during the post-closure sampling program at depths of between 44.21 and 47.89 feet bgs. The depth to first-encountered groundwater beneath the site has risen approximately 8 feet since monitoring began in April 1992 (Table 1). Based on the water level measurements collected in February 1997, groundwater flows to the south-southwest at a gradient of 0.002 foot/foot (Figure 2). The piezometric surface from measurements collected in February 1997, shows a trough in the area of wells MW-6 and MW-7 in the central portion of the site. This flow direction and piezometric surface differ slightly from past measurements where



the groundwater flow was generally parallel to the adjacent Los Angeles River. The groundwater flow direction is not generally different from the regional groundwater flow direction reported by the LACFCD (April 1988). Water-bearing sediments at this depth would be contained within the Bellflower Aquiclude (DWR Bulletin 104, 1961). Although normally contained above the Bellflower Aquiclude, these water-bearing soils could be assigned to the Semiperched Aquifer.

2.3 PREVIOUS ASSESSMENT PROGRAMS

A Phase I Environmental Site Assessment (ESA) was completed in November 1991, following closure of the Site (Phase One, November 26, 1991). Seven former USTs were identified by the ESA as closed prior to 1983 by Purex. One UST was closed in-place below the southwestern corner of Building 8. Eighty-seven (87) AGTs and their contents, former concrete tanks and buildings demolished prior to 1991 were also identified from the ESA. Additional assessment and review of historical data during subsequent assessment and the closure program added information on the tank contents. Based on the results of the ESA, several phases of site assessment were initiated and completed beginning in April 1992 and ending in April 1993 (EMCON, August 5, 1992; EMCON, April 9, 1993).

A total of 59 exploratory soil borings were drilled to depths between 3 and 76 feet below the ground surface (bgs), and seven groundwater monitoring wells, MW-1 through MW-7, were installed on and off the subject site (Plate 1). Pre-Closure exploratory soil borings were grouped by their total depth drilled into shallow (less than 3 feet), middle (to 15 feet), and deep (greater than 50 feet), to investigate stained areas, sumps and clarifiers, USTs and AGT areas. During the Phase II, III and IV assessment programs a total of 217 soil samples were selectively tested for the following suite of analytes (Tables 2 and 3):

- TPH
- BTEX
- VOCs
- Formaldehyde
- Polychlorinated Biphenyls
- pH

- Title 22 Metals
- Total Chromium
- Phosphates
- Chloride
- Phenols

As part of the initial site assessment program, groundwater samples were collected in April 1992 from wells MW-1, MW-2, MW-3, MW-4, and MW-5. VOCs, including trichloroethylene (TCE), were reported in water samples collected from wells MW-3, MW-4 and MW-5, in April 1992 at concentrations higher than those reported in onsite wells. Subsequently, semiannual groundwater sampling was suspended in these wells, because initial sampling results indicated an offsite source of VOCs (EMCON, November 7, 1995; EMCON, June 13, 1996).



Semiannual sampling of wells MW-1, MW-2, MW-6 and MW-7 began in September 1992 (Table 1). BTEX, and a variety of halogenated VOCs, including chloroform, 1,2-DCA, 1,2-dichloroethane (1,1-DCA), 1,2-dichloropropane (1,2-DCP) and TCE have been reported at low concentrations in groundwater samples collected from wells MW-6 and MW-7. Benzene has been reported at concentrations ranging from 5.8 to 230 µg/l in groundwater samples collected from wells MW-6 and MW-7. VOC concentrations in these wells have ranged from 0.5 to 89 µg/l, with the majority of the concentrations in the groundwater samples collected since 1992, being below respective State Maximum Contaminant Levels (MCLs).

Soil samples were collected adjacent to former waste management units, USTs, AGTs and AOCs identified in the ESA. The results of the Phase II through Phase IV site assessments identified the following AOCs and the associated COCs (Plate 1):

- Alkylate Unloading Sump (dodecylbenzene, TPH C18-C22);
- Building 8 Fuel Storage Tank (TPH Fuel Oil Range);
- Old Garage and Laboratory Storage Tanks (TPH Gasoline Range, BTEX, Chloroform, 1,2-DCA).

Subsequent assessments were conducted to assess the feasibility of remedial alternatives for remediation of dodecylbenzene- and petroleum hydrocarbon- and VOC-impacted soils in the alkylate unloading area and old garage and laboratory (EMCON, July 12, 1993). Soil vapor extraction (SVE) was selected as the preferred remedial alternative for mitigation of petroleum and VOC-impacted soils in the area of the old garage and laboratory (EMCON, July 12, 1993). Risk assessment modeling was performed to evaluate the risk of dodecylbenzene on human health and the environment in the area of the former alkylate unloading sump. LUFT risk assessment was similarly used to assess the qualitative risks to groundwater from petroleum-hydrocarbon impacted soils in the area of the Building 8 UST.

2.4 SOIL VAPOR EXTRACTION: OLD GARAGE AND LABORATORY

Seven nested vapor extraction wells were installed in the area of petroleum hydrocarbon- and VOC-impacted soil in the vicinity of the old garage and laboratory USTs (Plate 1). A long-term pilot program was performed from September to November 1993 to assess the feasibility of vapor extraction in removing VOCs and aromatic petroleum hydrocarbons from the soil. The full-scale SVE, operated from January through December 1995 (EMCON, February 23, 1996). During that time the SVE system operated for a total of 7,097 hours. Inclusive of the pilot testing program, approximately 34,000 pounds of volatile petroleum hydrocarbons were removed. Influent concentrations ranged from 36,000 parts per million by volume (ppmv) recorded during the pilot program to 470 ppmv in November 1995. Benzene concentrations declined rapidly in the influent



samples collected over the initial three month period of operations from 52 ppmv in early February 1995 and was not reported above practical quantitation limits in the samples collected in October and November 1995 (EMCON, February 23, 1996). An in situ-respirometer test conducted after SVE shutdown indicated that natural attenuation of residual petroleum hydrocarbons was occurring in the presence of atmospheric oxygen induced into the subsurface by the SVE system (EMCON, February 10, 1996).

2.5 DODECYLBENZENE HEALTH RISK ASSESSMENT

A human health risk assessment was performed by EMCON using the seasonal soil compartmental model (SESOIL) to evaluate potential risks associated with dodecylbenzeneimpacted soils in alkylate unloading area (EMCON, January 1994). The results of this risk assessment indicated that there are no significant human health impacts expected to result from exposure of onsite workers to dodecylbenzene-impacted soils. In response to comments made by the RWQCB (February 13, 1996), the dodecylbenzene health risk assessment was amended using quantitative structure activity approach (EMCON, June 5, 1997). The RWQCB did not object to implementation of the structure activity program, imposing additional conditions that included using the 95% upper confidence limit as a soil source concentration, a sensitivity analysis and toxicity analysis of dodecylbenzene breakdown products (RWQCB, August 16, 1996). Using this approach and site-specific physical soil data for bulk density, porosity, moisture content and vertical permeability, the SESQIL fate and transport modeling and toxicological data were refined and evaluated for a period of 99 years. The results of the amended risk assessment concluded that dodecylbenzene was not expected to leach to the groundwater and that exposure through volatilization and other exposure pathways are below levels of concern or generally accepted guidelines established by regulatory agencies (EMCON, February 10, 1997).

2.6 CLOSURE AND POST-CLOSURE PROGRAMS

Although several phases of site assessment and remedial activity were conducted through 1994, regulatory oversight had not been established by June 1995. In July 1995, Dial entered into a voluntary oversight contract with the RWQCB (RWQCB, July 1995). Subsequently, the RWQCB reviewed previous site assessment and remedial progress data collected through August 1995, and provided comments for further assessment and closure conditions for the site to Dial on February 13, 1996. A response to the conditions and discussions regarding a closure strategy and amendment of the dodecylbenzene health risk assessment were provided to the RWQCB (EMCON, May 20, 1996). A closure plan for the site was forwarded to the RWQCB on July 1, 1996, and was subsequently approved by the RWQCB with conditions on August 8, 1996. Several closure plan addendums and interim remedial action plans were provided to the RWQCB to address previously unknown site conditions, and the need for removal actions (Fugro, July 30, 1996; Fugro, September 9, 1996). The addendum outlined additional sampling in the area of the



brine tank, Sump ZZ, and stained soils discovered during demolition and foundation removal actions. Removal action procedures and analytical programs were also specified for the Building 8 UST closure and the removal of discolored and apparently impacted soils in the area of the acid containment area west of Building 8 and Sump ZX in Building 8 (Plate 2).

An interim closure assessment report was forwarded to the RWQCB on December 16, 1996, for the purpose of presenting the closure program data gathered through October 1996 and to allow the RWQCB to review and approve an additional "post-closure" assessment program for inclusion in the remaining portion of the sampling effort. The post-closure sampling program was proposed by Fugro (December 16, 1996) to assess AOCs that were not previously identified by past assessment programs, and to complete assessment in areas not fully delineated during the closure sampling program. The post-closure sampling program included:

- An expansion of the analyte suite for groundwater samples collected from onsite monitoring wells to include MBAS, ammonia and formaldehyde;
- Five additional shallow exploratory soil borings (EB-14 though EB-18) to assess the lateral
 and vertical extent of MBAS, ammonia and formaldehyde identified from closure samples
 collected in AGT Area V (Plate 3);
- Six additional soil borings (EB-4 through EB-7 and EB-12 and EB-13) in the area of hand auger borings HA-2 and HA-7 to delineate the lateral and vertical extent of elevated concentrations of petroleum hydrocarbons in soil samples collected at depths of 3 and 5 feet bgs, respectively (Plate 3);
- Four additional borings (EB-8 through EB-11) in the area of the Building 14 clarifier to assess the lateral extent of chloroform and methylene chloride identified in closure samples Q-E and Q-W (Plate 3); and
- Relocation of closure exploratory soil boring EB-1 to assess the vertical extent of 1,2,4 and 1,3,5 trimethylbenzene (TMB) identified in closure sample R-1 (Plate 3).
- Drilling of exploratory borings E-B-2 and EB-3 to provide data on the physical characteristics of the soil above the water table in support of risk assessment and SESOIL modeling.

A total of 120 soil samples and 8 groundwater samples were collected as part of the post-closure assessment program.



3.0 CLOSURE AND POST-CLOSURE PROGRAM AND PROCEDURES

3.1 CLOSURE PROGRAM

The closure sampling program was initiated on September 9, and was completed on October 24, 1996. During that period, 131 soil samples were collected below sumps, drains, clarifiers, USTs and eight AGT areas (Plate 2). Of the total number of samples collected, 16 were analyzed to characterize the stockpiled materials generated by the remedial excavations for disposal. Including the previous assessment programs, a total of soil samples were collected at the completion of the closure sampling program (Tables 2 and 3).

The soil samples were collected at depths between approximately 3 and 16 feet bgs beneath the sumps, drains, clarifiers, underground and aboveground tanks identified for closure on Plate 2. Soil samples were collected using either a hand auger (HA-1 through HA-10) or with the aid of the bucket of an excavator. Procedures of excavation and hand auger sampling are provided below. Soil samples were selected for chemical analysis consistent with the closure sampling schedule (Tables 2 and 3) in accordance with U.S. EPA methods for the following:

Analyte	Method
TPH (C ₄ to C ₂₃₊ range)	U.S. EPA method, modified 8015(ff)
BTEX	U.S. EPA method 8020
VOCs	U.S. EPA method 8260
Formaldehyde	U.S. EPA method 8315
Н	U.S. EPA method 9045
Phosphate	U.S. EPA method 365.2m
Chloride	U.S. EPA method 300.1
Ammonia	U.S. EPA method 350.2m
MBAS	U.S. EPA method 425.1m

Consistent with a RWQCB request made in the field September 4, soil samples O-M and O-SE collected below the sump south of the AGT area east of former Building 8 were analyzed for PCBs by U.S. EPA method 8080. Soil sample locations were tied to surveyed WMUs, AGT areas and building locations.



3.1.1 Excavation Sampling Procedures

Excavation samples were collected either by driving a brass or stainless steel sample tube directly into freshly uncovered soil within the excavation bottom or sidewalls, or into soil contained in the backhoe bucket. If collected from the backhoe bucket, a representative and undisturbed portion of soil within the bucket was selected, and a sample steel tube was driven into the soil using a hard rubber mallet. If collected from the excavation, the sample ring was driven into undisturbed soil using a hard rubber mallet. The sample tube was then removed and the ends were covered with Teflon sheeting and sealed with plastic end caps.

Samples were labeled, documented in the chain-of-custody record, and placed in a cooler with ice at approximately 4°C prior to laboratory analysis. Selected samples were delivered to a state-certified laboratory for analysis of selected analytes. Samples not selected for immediate analysis were transported in a cooler with ice and archived in a frostless refrigerator at approximately 4°C for possible future testing. Prior to use, the sampler and sampling tubes were thoroughly cleaned. Sampling equipment was brush-scrubbed in a Liquinox and potable water solution and rinsed twice in clean potable or deionized water.

Chain-of-custody protocol was followed for all soil samples selected for laboratory analysis. The chain-of-custody forms accompanied the samples from the sampling locality to the laboratory, providing a continuous record of possession prior to analysis.

3.1.2 Hand Auger Sampling Procedures

Each of the 10 hand auger borings (HA-1 through HA-10) were drilled using a 3-inch-diameter earth auger attached to a 3-foot-long T-bar that was operated manually. Soil samples were collected using a sampling device consisting of a steel penetration shoe attached to a 0.75-inch diameter steel rod and sliding hammer. The shoe was equipped with a brass sample retention liner approximately 4 inches long and 2 inches in diameter. To collect samples, the shoe and the liner were driven with the sliding hammer into the undisturbed soil at the bottom of the borehole. After the sampler was driven approximately 4 inches, the shoe was removed from the boring and the sample liner was removed from the shoe and sealed on both ends with Teflon tape and plastic end caps. The samples were retained for laboratory analysis. The hand auger and sampling equipment was washed and brush scrubbed in a Liquinox and potable water solution, and rinsed twice with deionized or potable water prior to each sampling episode. Upon completion of the sampling, each boring was backfilled with excavated soils.



3.2 CLOSURE PROGRAM REMOVAL ACTIONS

Removal of the former Building 8 fuel oil tank and excavation of yellow and white-stained soil, suggestive of low pH conditions, consistent with the workplan addendum of September 9, 1996, was completed by mid-October 1996. Following receipt of the closure permit, the Building 8 UST was excavated and removed in mid-October 1996. Six soil samples were collected from the bucket of an excavator at depths of between 8 and 12 feet bgs below the tank and along the excavation sidewalls for analysis of TPH and BTEX consistent with the above-described methods (Figure 3, Table 3). A mixture of sand and cement used to fill the tank for in-place closure was removed, along with excavated soil generated to expose the tank for closure sampling. Excavated soils were transported as nonhazardous waste to the TPS Technologies Soil Recycling Facility, Adelanto, Califomia (Appendix D).

Consistent with the September 9 workplan for removal of yellow- and white-stained soils below the former acid tank pit east of Building 8 (B-1 through B-4 and S-1 through S-5) and under sump ZX (ZX-1 through ZX-4) in the central portion of Building 8, 13 soil samples were collected to confirm the limits of the remedial (Figure 6; Tables 2 and 3). The soil samples were collected using excavation equipment and the procedures described above and analyzed for pH using EPA method 150.1 (Table 2 and 3). Based on the results of stockpile samples, soil removed from the acid-containment area and sump ZX excavations was sampled and later used to backfill these excavations.

Excavated soil generated from removal of the brine tank, Building 14 Clarifier, AGT Area V sampling and excavation, and removal of the alkylate unloading sump was characterized using closure samples and samples collected from stockpiled materials. Thirteen soil samples were collected from these excavation stockpiles and analyzed for selected COCs using the above-described methods (Tables 2 and 3). Including the soil generated from excavation of the Building 8 tank, an estimated 153 tons (120 cubic yards) of soil was transported as nonhazardous waste to TPS technologies for recycling. Manifests for soil removed by TEG to the TPS facility are provided in Appendix D.

3.3 POST-CLOSURE ASSESSMENT

The post-closure assessment program included drilling 18 exploratory soil borings EB-1 through EB-18 to complete the lateral and vertical delineation of AOCs and COCs that were not previously identified by past assessment programs, and address data gaps from the closure sampling program conducted in September and October 1996. The post-closure sampling effort was initiated on February 6 and completed on February 25, 1997. Soil sampling was done using Geoprobe Equipment described below for post-closure borings EB-1, EB-4 through EB-18 (Plate 3). One hundred and twenty (120) soil samples were collected from these borings for analysis of



VOCs, petroleum hydrocarbons, formaldehyde, MBAS and ammonia by the analytical methods described under section 3.1 (Table 4). Exploratory borings EB-2 and EB-3 were drilled using hollow-stem-auger drilling equipment. In addition to the EB borings, monitoring wells MW-11, MW-12 and MW-13 were installed during the post-closure program using hollow-stem-auger drilling equipment. The new wells and monitoring wells MW-1, MW-2, MW-3, MW-6 and MW-7 were developed to remove sediment accumulated from demolition operations, and sampled consistent with the procedures described below.

3.3.1 Geoprobe Sampling Procedures

Soil samples from post-closure soil boring EB-1, EB-4 through EB-18 were collected using the Geoprobe® system provided by Vironex Field Services (Vironex), of Los Angeles, California. The Geoprobe® system consists of a hydraulic ram and hammer unit that drives a 1.5 inch-diameter probe into the soil and is advanced by adding 4-foot-long, threaded, hollow drill rods. Connected to the end of the lead drill rod was a 1.5-inch-diameter, 24-inch-long stainless steel soil sampler fitted with four precleaned 6-inch-long by 1-inch-diameter brass or stainless steel sleeves. At each 5-foot-depth interval, the soil sampler assembly was driven 24 inches into undisturbed soil. The field geologist classified soils from the drill holes based on lithology screening, consistent with the Unified Soil Classification System (ASTM C2487-94).

Soil samples retained for analysis were sealed with Teflon® sheets and plastic end caps. The labeled sleeves were then sealed in a plastic bag and placed in an insulated cooler refrigerated using ice packs. Chain-of-custody records were prepared to document sample handling information. Soil samplers and sampling attachments were cleaned and brush-scrubbed with a Liquinox and potable water solution followed by two successive rinses with deionized or potable water prior to collecting each sample. All open drill holes were backfilled with bentonite.

All soil samples collected were screened with a PID for the presence of VOCs using headspace analysis. Headspace analyses were conducted using a portion of the soil from the lower sleeve that was placed into a sealable plastic baggy. The soil vapors were allowed to equilibrate in the bag for at least 15 minutes. The jar was then be opened and the sampling inlet of an organic vapor analyzer or PID was inserted to measure VOC concentrations in the bag headspace. The PID was equipped with a 10.6eV lamp to detect the widest range of VOCs. The results of the field screening are presented on the boring log (Appendix E).



3.3.2 Hollow-Stem-Auger Borings and Wells

The groundwater monitoring well borings and borings EB-2 and EB-3 were drilled using a truck-mounted, high-torque, hollow-stem-auger drilling rig (CME-75). Continuous flight augers measuring approximately 10 inches in diameter, were used to advance each borehole to a target depth of between approximately 45 and 70 feet bgs. Before sampling, all equipment that came into contact with potentially impacted soil was cleaned as described above. The drill rig equipment and drill tools were steam cleaned before use and after each borehole completion.

Undisturbed soil samples were collected at 5-foot-depth intervals to the total depth of each boring. At each 5-foot-depth interval, a 1.5-foot-long, 2-½-inch-diameter, split-tube type drive sampler was advanced 1.5 feet ahead of the lead flight auger. The sampler was driven with a standard penetration test detailed in ASTM D1586 (using a 140-pound hammer with a 30-inch drop). The number of blows required to advance the sampler each 6-inch interval was recorded on a boring log. The field geologist prepared lithologic descriptions of the soils encountered (based on examination of auger cuttings and the soil samples) using the Unified Soil Classification System (ASTM C2487-94). Soil samples were collected for analysis of physical soil characteristics in borings EB-2 and EB-3. Soil samples from these borings were selectively analyzed for the following:

Analyte	Method
Total Organic Carbon	U.S. EPA 9060
Total and Dry Density with Moisture Content	ASTM D2937
Vertical Permeability	ASTM 5084

Installation of Groundwater Monitoring Wells. Three four-inch-diameter Schedule 40 PVC groundwater monitoring wells were installed within the subject site as describe in the EMCON Closure Plan (July 1, 1996). The well was constructed of 0.020 slotted, "high flow" PVC, screen set at depths of between approximately 30 to 70 feet bgs. Filter pack consisting of No. 3 Lone Star Sand was placed across and slightly above the screen interval. The wells were surged following placement of the filter pack to allow for settlement. Additional sand was added as needed to bring the sand slightly above the screen section. A bentonite seal, consisting of bentonite chips hydrated at 1-foot intervals was placed above the filter pack to within 2 feet of the surface. A PVC slip cover was place on the top of each well and the well head was secured within a 14-inch diameter steel riser pipe. Well permits for each well were obtained from the County of Los Angeles Department of Health Services prior to installation. The well head elevations and locations were surveyed by a California-licensed surveyor relative to mean-sea level.



Monitoring Well Development. The monitoring wells were developed following installation to restore the natural hydraulic conductivity of the formation surrounding the well, remove sediments from the well casing and formation and stabilize the filter pack. Groundwater level measurements were recorded prior to development and each well was developed using a 3/4 inch diameter bailer and surge block. During the development, the water was contained in DOT drums and monitored for pH, temperature and specific conductivity as well as total settleable solids (TSS). Development continued until TSS concentrations were below 1 part per thousand by volume measure by an Imhoff Cone.

Groundwater Sampling. A groundwater sample was collected from each of the newly installed groundwater monitoring wells and wells MW-1, MW-2, MW-3, MW-6, and MW-7 on February 24 and 25, 1997. Prior to collecting a groundwater sample, the depth to water and well depth in the well was measured using an electronic sounder. Using a submersible pump the well was purged a minimum of three casing volumes of water. During pumping, the water was monitored for temperature, pH, and specific conductance to assess if formation water has entered the well. A minimum of three measurements was collected within the calculated purge volume. Field data sheets documenting purging operations are presented in Appendix E. Groundwater wells were sampled in order of historically lowest benzene concentration to historically highest benzene concentration to minimize the risk of cross-contamination during the sampling program.

When the above-described parameters stabilized, the well was allowed to recover to almost static conditions and sampled. The groundwater sample was collected using a disposable Teflon bailer attached to a braided nylon line. The bailer and line was discarded after sampling was completed. The groundwater samples were collected and placed into 40 ml VOA containers supplied by the State-certified analytical laboratory. The VOA containers were labeled and placed into ice-cooled, insulated containers for transportation to the laboratory, along with appropriate chain-of-custody documentation. Low yield wells (wells MW-12 and MW-13), that did not produce the calculated purge volume within one hour of their recovery and did not exceed 80 percent of static within 2 hours, were purged to dryness and sampled as enough water was available.



Groundwater samples were collected and analyzed for the following:

Analyte	Method
Volatile Organic Compounds	U,S. EPA Method 8260A
Total Petroleum Hydrocarbons	U.S. EPA Method 8015M
Formaldehyde	U.S. EPA Method 8315
pH	U.S. EPA Method 150.1
Chloride	U.S. EPA Method 300.0
Ammonia	U.S. EPA Method 353.3
MBAS	U.S. EPA Method 425.1

Equipment that came into contact or that was used to collect the groundwater sample was steam-cleaned and rinsed with deionized water. Because a disposal bailer was used in the sampling of the well, an equipment blank of the purging equipment was collected prior to purging the final well. The equipment blank of deionized water was collected from the final rinsing to the pump. Additionally, a trip blank was prepared prior to the sampling effort, to accompany the samples within the insulated container upon collection and to final delivery to the laboratory. The equipment and trip blanks were analyzed for VOCs by U.S. EPA method 8260.

3.4 DATA EVALUATION METHODS

To evaluate closure and post-closure data, the analytical results were compared to published screening level guidance established to protect human health and groundwater. U.S. EPA Region IX, PRGs (September 1, 1995) for industrial soils and screening level values derived using the attenuation factor method described in the RWQCB May 1996, "Interim Assessment and Site Cleanup" Guidebook were used to evaluate the closure and post-closure analytical data.

The U.S. EPA (September 1, 1995), Region IX PRGs combines current U.S. EPA toxicity values with "standard" exposure pathways to estimate concentrations of COCs in the environmental media (i.e., soil, groundwater and air) that are protective of humans, including sensitive receptors. The PRG levels correspond to either one-in-one million (10⁻⁶) cancer risk or a noncarcinogenic hazard quotient of one, whichever yields the most conservative screening value. According to the U.S. EPA Region IX, PRGs can be used to screen COCs in the environmental media and trigger further investigation. Because the future land use will be industrial property, industrial soil PRGs were compared with closure and post-closure data.

The screening level guidance established by the RWQCB (May 1996) is based on attenuation of the COCs in the soil media and their vertical separation (distance) above a groundwater resource. To establish a screening level estimate, the retention and transportation of volatile and petroleum



compounds through the soil media and their separation from the water table and the beneficial use of the groundwater is considered. A screening level estimate for VOCs and chloride, formaldehyde, ammonia and MBAS was derived by multiplying the State of California Maximum Contaminant Level (MCL) for a COC by its attenuation factor, which is based on the lithologic makeup of the soil column and the vertical distance separating the COCs from the water table. Screening level values for hydrocarbons and BTEX compounds were derived from interpolation of prescribed RWQCB values contained in Table 4-1 of the guidance document, "Maximum Screening Levels (mg/kg) for TPH and BTEX Above Drinking Water Aquifers." Table 5-1, "Average Attenuation Factors for Different Distances Above Groundwater and Lithology" and the methods described in the RWQCB May 1996 document were used to establish the screening levels for the COCs and are presented in Table 5.

The screening level estimates were calculated using a depth to groundwater of 45 feet bgs. In calculating the attenuation factor, the soil makeup separating the COCs and the groundwater was interpreted to be 50 percent sand and 50 percent clay. Linear interpolation of the published criteria on RWQCB Tables 4-1 and 5-1 were used to establish attenuation factors and subsequently the screening level estimates. Screening level estimates were provided for those VOCs or other COCs that were reported above practical quantitation limits (PQLs) by the laboratory in more than one soil sample collected during the closure and post-closure sampling.

A detailed presentation of the calculations and assumptions used to establish screening levels is provided in Appendix F.

The 1,2,4- and 1,3,5-trimethybenzene (TMB) have no published toxicity information, state or federal MCL or PRG to calculate a screening level value. The MCL for xylenes of 1.75 µg/l was used as an approximation in the screening level calculations for TMB. This value was selected because of the molecular similarities between TMB and xylenes, and the assumed similar structure activity. Similarly, naphthalene has no published state or federal MCL or PRG from which to obtain a screening level value. In this case, an EPA suggested no adverse response level (SNARL) value, established by the EPA (March 1986, September 1987) for naphthalene of 20 µg/l, was used to provide screening level guidance. A SNARL advisory is considered guidance and is not enforceable as a drinking water standard. The values are subject to change and represent contaminant levels where there is no appreciable risk. Thus, the screening level derived for naphthalene represent lower-bound conservative estimates.



4.0 CLOSURE PROGRAM RESULTS

The closure program results are provided on Tables 6 and 7, and are shown on Figures 3 through 8. Certified analytical laboratory reports and Chain-of-Custody documentation are provided in Appendix B.

4.1 PETROLEUM HYDROCARBONS

Sixty-seven (67) soil samples were collected beneath selected USTs, AGT areas, clarifiers, sumps and drains for analysis of petroleum hydrocarbon content by U.S. EPA method 8015(ff) (Figure 3). Hydrocarbons in the C₁₃ to C₂₂ range were the most frequently reported in the soil samples analyzed at concentrations that ranged from near the practical quantitation limit (PQL) of 0.5 mg/kg to 3,200 mg/kg (Tables 6 and 7). Concentrations in excess of the screening level value of 1,000 mg/kg were reported in soil samples HA-7 and HA-2, collected at depths of 5 and 3 feet below the former alkane tank near the storm water retention area and the oil storage area within former Building 6, respectively (Figure 2). Gasoline range (C₄ to C₁₂) hydrocarbons were not reported in any soil samples collected at a TPH concentration above 1.8 mg/kg, and with the exception of the sample from HA-2, "high boiling point" hydrocarbons (C₂₃₊) were not reported above 210 mg/kg in the closure samples analyzed.

The petroleum hydrocarbons reported in the C_{13} to C_{22} range are consistent with the reported range for alkane oil and dodecylbenzene. Hydrocarbon concentrations greater than 100 mg/kg were generally reported in soil samples collected in the area of the alkylate unloading sump (Clarifier samples S and SW) and below the stormwater retention area (AGT Area VIII), where known impacts have been identified by previous assessments (Figure 3). Additionally, elevated C_{13} to C_{22} range hydrocarbons concentrations were reported in one soil sample (AV-A) in AGT Area V and in one soil sample (AIV-C) in Building 8 where alkane (or alkylate) oils were stored or used in the manufacturing process.

The hydrocarbons identified from samples collected in Building 8 (AIV-C) and AGT Area V (AV-A) appear to be a localized release through a former sump or drain into the subsurface. The petroleum hydrocarbons identified in soil samples collected below the stormwater retention area (AGT Area VIII samples) and clarifier appear to be related to alkylate-impacted soils identified from previous investigations of the unloading sump or could possibly be related to a release from the piping leading from the unloading sump to the alkane tank. All these samples collected at depths of between 3 and 5 foot bgs are below the screening level criteria of 1,000 mg/kg for C_{13} to C_{22} range petroleum hydrocarbons.



Two soil samples (HA-2 and HA-7) collected at a depth of 3 and 5 feet bgs exceed the screening level criteria for petroleum hydrocarbons in this hydrocarbon range. The vertical extent of hydrocarbons at concentrations above the criteria was not delineated in the area of samples HA-2 and HA-7. Additional post-closure sampling was proposed to assess the lateral and vertical extent of petroleum hydrocarbons identified in these borings.

4.2 PETROLEUM AROMATIC COMPOUNDS

A total of 15 soil samples were collected and analyzed for BTEX compounds below the former Building 8 tank, former 100-gallon gasoline storage tank and the storm-water retention area (Plate 2). With the exception of the west side wall sample collected for closure of the Building 8 tank, no BTEX compounds were reported above laboratory practical quantitation limits. The "west" sidewall sample collected at a depth of 10 feet bgs from the Building 8 tank excavation contained a total xylenes concentration of 0.017 mg/kg. No soil samples were collected that contained BTEX concentrations above the screening level estimates or PRGs (Tables 6 and 7). With the exception of the additional sampling required for closure of the SVE system, the assessment of BTEX in the soils beneath the site was completed during the closure sampling phase.

4.3 VOLATILE ORGANIC COMPOUNDS

A total of 21 soil samples were collected beneath selected sumps, drains, clarifiers and AGTs and analyzed for volatile organic compounds by U.S. EPA method 8260 (Figure 4). Chloroform and methylene chloride were reported in four soil samples collected below the clarifier between Building 2 and 14, and along the drain line due west of the former "chlorimide system," and AGT Area I at concentrations ranging between 0.012 and 0.110 (Figure 4). The low concentrations in the soil in this area are similar to those reported in soil samples collected from EMCON borings B-1, B-46 and B-50 (EMCON, August 5, 1992; EMCON, April 9, 1993) (Plate 1). Neither chloroform nor methylene chloride reported in these soil samples exceeded either their industrial PRG or calculated screening level value (Table 5). Additional exploratory post-closure soil borings were recommended to assess the lateral and vertical extent of chloroform, and to confirm the presence of methylene chloride in the area of the Building 14 Clarifier (Fugro, December 16, 1996). Monitoring well MW-11, installed during post-closure sampling program was relocated to be closer to and downgradient from these sample locations. Well MW-11 was relocated to provide a better assessment of potential chloroform impacts on shallow groundwater in this area.

The 1,2,4 and 1,3,5 TMB were reported at concentrations of 0.650 and 0.190 mg/kg, respectively, in soil sample R-1 collected below the west end of the main gate clarifier at a depth of 16 feet bgs (Figure 4). Although the concentrations of TMB were below the PRG and screening level criteria, post-closure boring EB-1 was relocated from its proposed closure plan location to the west end of the former clarifier to provide additional assessment data below sample R-1.



4.4 FORMALDEHYDE

Tasts for formaldehyde were performed on 18 soil samples collected from AGT Area V and from along the trench drain adjacent to the former chlorimide system and AGT Area I (Figure 5). Formaldehyde was reported in samples collected from the AGT Area V due east of former Building 8 at concentrations ranging from 2.9 to 50.1 mg/kg (Table 7). One soil sample VD.3, collected below a sump adjacent to the former "chlorimide system" contained formaldehyde at a reported concentration of 2.7 mg/kg. The method blanks for the samples collected contained formaldehyde at concentrations of 1.3 and 1.5 mg/kg. None of the samples analyzed contained formaldehyde concentrations in excess of the industrial PRG of 100,000 mg/kg or the screening level estimate of 59.

The highest concentrations were reported in soil samples AV-A and AV-B collected adjacent to the former formaldehyde storage tanks and the sump due south of the tanks in AGT Area V (Figure 5). Because of the presence of formaldehyde in the method blanks and its natural presence within the environment, soil samples with concentrations below 3 mg/kg should be considered background. Additional sampling was recommended to assess the vertical extent of the sample with the highest formaldehyde concentration (AV-B), and the separation to groundwater in this area.

The presence of formaldehyde in the soil sample VD.3 (2.7 mg/kg), collected within and subadjacent to the "chlorimide system," is near the method blank concentration of 1.5 mg/kg and probably is not indicative of a release in this area (Figure 5). Further, the source of the formaldehyde within the "chlorimide system containment area" is not consistent with its reported use at the site.

4.5 pH

pH was the most frequently tested analyte below the sumps, drains, clarifiers and AGT areas (Figure 6). A total of 86 soil samples were collected and tested for pH. The majority of the pH values ranged between 7 and 9, with six soil samples exhibiting values below 5 or equal to or above 10 (Tables 6 and 7). Soil sample S-2 collected at a depth of 3 feet bgs during the removal action in the acid containment area contained a reported pH of 4.3. This affected soil was removed to a depth of 5 feet bgs. Confirmatory soil sample S-5 collected 2 feet below and north of S-2 contained a pH of 7.8. The shallow depth of the confirmatory soil sample of 5 feet bgs indicates the affected soil was limited in vertical extent below the former acid tank containment area. The soil sample (HA-10) with the highest pH (11.6) was collected at a depth of 5 feet bgs adjacent to the former caustic unloading sump (Figure 6). Additional pH values over 10 were reported in soil samples collected below the main gate clarifier (R-1), brine tank (BT-B) caustic unloading sump (J-S) and spray dryer area and Building 5 (L). None of the pH values reported



exceed CCR Title 22 criteria (section 66261.22) for classification of a waste as hazardous by characteristics.

Local elevated pH conditions in the soil do not appear to have affected the shallow groundwater beneath the site. Historically, field pH measurements of groundwater samples collected have not been above 9, and frequently range from 7 to 8. However, groundwater samples collected from onsite monitoring wells sampled during the post-closure program were additionally analyzed for pH by U.S. EPA method 150.1.

4.6 PHOSPHATE, CHLORIDE AND AMMONIA

Sixteen (16) soil samples were collected and tested for phosphate as part of the closure program. The reported phosphate concentrations in these samples ranged from 1.4 to 6.9 mg/kg (Tables 6 and 7).

Thirty-three (33) soil samples were analyzed for ammonia by U.S. EPA method 350.2 (Tables 2 and 3). Reported ammonia concentrations in these samples ranged from 28 to 470 mg/kg. The highest concentrations were reported in soil samples (AV-A and AV-E) collected from AGT Area V east of former Building 8 (Plate 2). None of the sample concentrations reported exceeded the PRG of 100,000 mg/kg for ammonia. Sample AV-A contained an ammonia concentration near the screening level estimate of 484 mg/kg. Additional sampling was performed during the post-closure assessment program in AGT Area V assess the lateral and vertical extent of ammonia identified in samples AV-A and AV-E.

Sixty-two (62) soil samples were analyzed for chloride by U.S. EPA method 300.1 (Tables 2 and 3). The majority of the samples were collected below AGT Areas i, IV, and V, the main clarifiers and drains in Building 5 and adjacent to the former "chlorimide system" (Figure 7). Chloride concentrations above 1,000 mg/kg, and at or above the screening level criteria of 2,688 mg/kg, were reported in samples AGT closure samples AI-A, AIV-D, AV-C and V-SM (Figure 7). The remaining 53 soil samples analyzed for chloride were well below the screening level criteria.

4.7 METHYLENE BLUE ACTIVE SUBSTANCES (MBAS)

Soil samples collected below the AGT Areas V, VI and VIII and the main clarifiers, sumps and drains were tested for MBAS by U.S. EPA method 425.1M (Figure 8). MBAS concentrations ranged from 1.3 to 1,600 mg/kg and were the highest in samples collected in the AGT Area V "detergent area," AGT Area VIII "stormwater retention area" and samples S and H.1 collected below the clarifier north of AGT area VIII and drain between Buildings 4 and 7, respectively. The majority of the soil samples analyzed contained MBAS concentrations in excess of the screening level criteria of 5.4. Additional sampling was recommended in the AGT Area V to assess the



lateral and vertical extent of MBAS where it was reported at the highest concentrations in soil samples collected during the closure program. Additionally to assess the impacts to shallow groundwater, MBAS was also included as an analyte in the groundwater sampling program for onsite wells sampled during the post-closure assessment.



5.0 POST-CLOSURE SAMPLING RESULTS

The post-closure program soil results are provided in Table 8, and are presented on Figures 9 through 12. Groundwater sampling data and results are provided in Table 1 and on Figure 2. Certified analytical laboratory reports and Chain-of-Custody documentation for post-closure assessment samples is provided in Appendix C.

5.1 RESULTS OF POST-CLOSURE SOIL SAMPLING

5.1.1 Petroleum Hydrocarbons

Soil borings EB-4 through EB-7 and EB-12 and EB-13, were drilled to assess the lateral and vertical extent of petroleum hydrocarbons in the C13-C22 range, identified in soil samples collected from borings HA-2 and HA-7 (Figure 9).

Petroleum hydrocarbons were not reported in soil samples collected to a depths between 10 and 20 feet from borings EB-4, EB-5 and EB-6 (Figure 9). Petroleum hydrocarbons were reported at a concentration of 580 mg/kg in the soil sample collected at a depth of 5 feet bgs from boring EB-7, drilled north of boring HA-2 and EB-4 (Figure 9). The low concentrations of petroleum hydrocarbons at this depth appear to be related to those identified from the closure of sump C1, approximately 25 feet north of HA-2 and adjacent to boring EB-7 (Figure 3 and Plate 2). Based on the sampling data hydrocarbons identified at a depth of 3 feet in the soil sample collected from boring HA-2 appear to be localized.

Exploratory soil borings EB-12 and EB-13 were drilled to assess the vertical and lateral extent of petroleum hydrocarbon impacted soil with TPH concentrations greater than screening level criteria identified from the soil sample collected at 5 feet in boring HA-7 (Figure 3). Soil samples collected from these borings contained TPH concentrations ranging from 0.68 to 1500 mg/kg at depths between 5 and 30 feet bgs. The highest concentrations, above 1000 mg/kg were reported at a depth of 10 feet bgs in both borings. These were the only two borings with TPH concentrations in excess of screening level criteria. Using the data from EMCON borings E-52 and E-53 (EMCON, April 9, 1993), and the recent data, the lateral and vertical extent of petroleum hydrocarbons identified by a 5-foot sample from boring HA-7 has been delineated. The source for hydrocarbons identified in this area is likely the former alkane tank (0223) (Plate 3).



5.2.2 Petroleum Aromatic Compounds

Three confirmatory soil borings, CB-1, CB-2 and CB-3 were drilled to assess the effectiveness of the SVE in the area of the old garage and laboratory. Low concentrations of residual BTEX compounds were reported in soil samples collected at depths between 20 and 45 feet bgs. BTEX concentrations over this interval ranged from 0.005 to 200 mg/kg and were generally below 0.1 mg/kg (Figure 10). Three soil samples, one from boring CB-2 and two from boring CB-3, contained BTEX concentrations over 1 mg/kg (Table 8). The highest concentrations were reported at depths of 20 and 30 feet bgs in soil samples collected from boring CB-3, above and within a clay. The BTEX concentrations reported are generally well below those reported in soil samples collected from borings drilled during the Phase II, III and IV assessments conducted prior to initiation of the SVE. The majority of the soil samples analyzed contained BTEX concentrations below screening level criteria, indicating that the SVE was effective in removing and reducing volatile petroleum aromatic hydrocarbons to acceptable levels.

TPH concentrations in the soil samples collected from borings CB-2 and CB-3 ranged from 0.58 to 4200 mg/kg (Figure 10). Petroleum hydrocarbons quantified by EPA method 8015M were not reported in soil samples collected from boring CB-1 above PQLs. Only two soil samples from the 36 analyzed contained TPH concentrations above 100 mg/kg (Table 8). These samples were collected from boring CB-3 at depths of 20 and 25 feet bgs within and above a fine-grained clayey interval. Petroleum hydrocarbon concentrations in soil samples collected below this interval were not reported at concentrations above 15 mg/kg (Table 8).

5.2.3 Volatile Organic Compounds

Exploratory soil borings E-1 and EB-9 through EB-11 were drilled to assess the extent of 1,2,4-and 1,3,5-TMB and chloroform and methylene chloride reported in closure samples R-1 and O-E and O-W, respectively (Figure 11). Chloroform was reported in soil samples collected from borings EB-8 through EB-11 to depths of 25 feet bgs, at concentrations of between 0.01 to 0.64 mg/kg. Chloroform was reported in soil samples collected within and above a fine-grained clayey horizon reported to a depth of 25 to 30 feet in these borings, but was not detected above PQLs in soil samples collected below this interval (Table 8). Chloroform was not reported in soil samples above this interval at concentrations in excess of the industrial PRG and screening level criteria. The extent of chloroform has been delineated vertically in the area of closure samples Q-E and Q-W, but has not been delineated laterally to non-detectable levels (Figure 11). The lateral extent of chloroform has been delineated by borings EB-8 through EB-11 in this area to PRG and screening level concentrations.

Methylene chloride was not reported in soil samples collected from borings EB-8 through EB-11 at concentrations above PQLs (Table 8). The absence of methylene chloride in the soil samples



collected from these borings suggests that the presence of this compound is limited below the former clarifier.

Low concentrations of 1,2,4- and 1,3,5-TMB and naphthalene ranging from 0.011 to 0.22 mg/kg were reported in soil samples collected from Boring EB-1 to depths of 25 feet bgs. Similar to the distribution of chloroform, these analytes were found within and above a sandy silt layer present to a depth of 32 feet bgs. In addition to these VOCs, petroleum hydrocarbons were reported in soil samples collected from boring EB-1 at depths of 5 to 25 feet bgs (Table 8). TPH concentrations were below 100 mg/kg in samples collected below 15 feet from boring EB-1. The soil sample collected at 5 feet bgs contained a TPH concentration of 1700 mg/kg, mostly within the C13-C22 range and the soil sample collected at 15 feet contained a TPH concentration of 172 mg/kg within the C_4 to C_{23*} range.

Although not reported in closure samples Q-E and Q-W, dichlorodifloromethane, 1,1 dichlorethane (1,1-DCA) and trichloroethene (TCE) were reported in soil samples collected to a depth of 45 feet bgs from being EB-8 and EB-10 (Figure 11). The low concentration of TCE (0.0032 mg/kg) reported in the soil sample collected from boring EB-10 at 45 feet bgs likely represents saturated conditions and is a reflection of contamination from the groundwater. TCE concentrations in soil samples from boring EB-8 ranged from 0.0031 to 0.051 mg/kg in soil samples collected at depths of 25 to 40 feet bgs. The lateral extent of TCE, 1,1-DCA and dichlorodifluoromethane appears localized below the former clarifier between Building 2 and 14, and has been delineated laterally by the post-closure borings EB-9, EB-10 and EB-11. The presence of these compounds is anomalous given they have not been reported in soil samples collected from Pre-Closure or Closure sampling programs nor has their use been documented at the site. distribution of TCE does not match that of chloroform, which was reportedly used at the site, as it was detected in soil samples collected below not above the fine-grained clayey interval encountered in boring EB-8 at a depth of 20 feet bgs. One soil sample collected at a depth of 30 feet contained a TCE concentration in excess of the RWQCB screening level criteria. None of the compounds reported in soil samples collected from boring EB-8 contained concentrations in excess of PRGs.

5.2.4 Formaldehyde, Ammonia and MBAS

Five exploratory soil borings, EB-14 through EB-18 were drilled in AGT Area V to assess the lateral and vertical extent of formaldehyde, ammonia and MBAS reported in closure samples AV-A, AV-B and AV-E (Table 6).

Formaldehyde was reported in soil samples collected to a depth of 20 feet bgs at concentrations ranging from trace levels (<3 mg/kg) to 23.6 mg/kg (Figure 12). Soil samples collected from borings EB-14 and EB-15 drilled within the former AGT Area V containment showed a general



decreasing trend in formaldehyde concentrations in soil samples collected to a depth of 20 feet bgs (Figure 12). The highest formaldehyde concentrations were reported in soil samples collected from these borings at a depth of 10 feet bgs. As with previous analyses for formaldehyde, because of its presence in the environment and in the method blanks, concentrations below 2.4 mg/kg should be considered background. Although the vertical and lateral extent of formaldehyde was not delineated by the five borings within and adjacent to AGT Area V, none of the soil samples contained concentrations in excess of the screening level criteria or the PRG.

Ammonia was not reported above PQLs in soil samples collected from borings EB-14 through EB-18 (Table 8). The absence of this COC in these samples suggests that ammonia reported in closure samples AV-A and AV-E is limited to near-surface soils within the former AGT containment.

Fourteen soil samples were collected for analysis of MBAS from boring EB-14 through EB-18. MBAS concentrations in these samples ranged from 1.9 to 12 mg/kg, well below previously reported closure samples AV-A and AV-B (Table 8). Based on the results of soil samples collected from borings EB-14 and EB-15, the vertical extent of MBAS within the former AGT Area V appears limited to depths of 5 feet bgs. The lateral extent of MBAS was not completely delineated by the borings drilled to a depth of 10 feet around the former AGT containment. Soil samples from borings EB-16 and EB-18 contained MBAS at low concentrations at or below screening level criteria (Figure 12).

5.3 RESULTS OF GROUNDWATER SAMPLING

Groundwater samples were collected from the eight onsite monitoring wells on February 24 and 25, 1997. Benzene was only reported in groundwater samples from wells MW-6, MW-7 and MW-13, at concentrations between 0.67 and 2.8 µg/l, well below previously reported values (Table 1). Similarly, petroleum hydrocarbons were only reported above PQLs in the sample from well MW-7 at a concentration of 0.55 mg/l. With the exception of the sample from well MW-6, BTEX compounds were not reported at concentrations above their respective MCLs. On the basis of samples collected in February, 1997, the extent of the groundwater impacted by BTEX compounds has been delineated on the subject site (Figure 2)

1,1-DCA was the most frequently reported VOC in samples collected from wells MW-3, MW-6, MW-7, MW-11 through MW-13 at concentrations below MCLs, and ranging from 0.68 to 3.3 μ g/l (Table 1). Low concentrations of TCE were reported in groundwater samples collected from wells MW-3 and MW-12 at concentrations of 3.4 and 12 μ g/l. Chloroform was reported in the sample from well MW-7 at a concentration of 1.7 μ g/l, below the MCL. 1,2-DCA and 1,2-DCP, reported in groundwater samples collected previously from wells MW-6 and MW-7 were not reported in any



sample above PQLs. In general, with the exception of 1,1-DCA, VOC concentrations were lower and in some instances compounds were not reported in comparison to previous sampling events. With the exception of the groundwater sample from well MW-12, no VOC concentration reported above PQLs was above its respective MCL. Using TCE, 1,1-DCA, 1,2-DCA and chloroform as indicators, the distribution of VOCs from groundwater samples collected suggests contribution from offsite sources (Figure 1).

Formaldehyde was reported in all the groundwater samples collected at concentrations ranging from trace levels (<0.025 mg/l) in upgradient well MW-1, to 0.224 mg/l in the water sample collected from well MW-6 (Table 1). The highest concentrations were reported in groundwater samples collected from wells MW-6 and MW-7, located in the central portion of the subject site and well MW-2 located at the southeastern comer of the site. The distribution of formaldehyde in the groundwater samples collected is not consistent with closure and post-closure sampling data or its reported use at the site. Given that formaldehyde was reported in soil samples collected in AGT Area V and it was reportedly used in that area, the highest concentrations of formaldehyde would be expected in wells MW-2 or MW-13, given historic and recent groundwater flow directions (Figure 2). Formaldehyde concentrations reported in groundwater samples collected in February 1997, are below the PRG of 5.5 mg/l for tap water.

Similar to formaldehyde, MBAS was reported all onsite wells, including the upgradient well at concentrations ranging from 0.14 to 22 mg/l. Groundwater samples from wells MW-2, MW-6 and MW-13 contained MBAS concentrations in excess of the secondary MCL of 0.5 mg/l (Figure 2). Chloride was reported in all groundwater samples collected at concentrations of 98 to 9400 mg/l (Figure 2). The highest concentrations were reported in groundwater samples collected from wells MW-6 and MW-7, centrally located within the subject site. The secondary MCL for chloride of 500 mg/l was exceeded in all groundwater samples collected except for those from upgradient well MW-1 and downgradient well MW-12. Ammonia concentrations in the eight groundwater samples collected were relatively uniform and ranged from 1.2 to 13 mg/l. Normalized to nitrate (NO₃), with the exception of the sample from well MW-7, these ammonia concentrations are below the secondary MCL of 45 mg/l.



6.0 CONCLUSIONS

Inclusive of prior assessments, the closure program and post-closure sampling program, 468 soil samples have been collected at the subject site. Seven groundwater sampling events have been performed since April 1992 to assess onsite, upgradient and downgradient water quality. The following conclusions are offered, based on assessment and remedial actions performed at the site.

6.1 SUBSURFACE SOIL CONDITIONS

6.1.1 Petroleum Hydrocarbons

- The majority of soil samples collected with elevated concentrations of petroleum hydrocarbons appear to be shallow and related to a release from a former sump or drain. Within the southeastern corner of the site and the former alkylate unloading sump, alkane tank and stormwater retention area, petroleum hydrocarbon impacted soils are found over a wider area and extending to a depth of up to 30 feet bgs. Hydrocarbons identified from soil samples collected in this area are identified as primarily dodecylbenzene and appear to be related to multiple sources including the alkylate sump and piping and the alkane tank.
- Post closure sampling to assess the extent of petroleum hydrocarbons in two areas with concentrations over screening level criteria showed the extent of hydrocarbons to be limited vertically to depths of less than 30 feet. Petroleum hydrocarbon concentrations were not reported in soil samples collected below 10 feet bgs at concentrations in excess of or the screening level criteria (1000 mg/kg). The assessment of petroleum hydrocarbons identified from closure samples with concentrations in excess of screening level criteria has been completed and delineated both laterally and vertically.
- The results of the risk assessment performed by EMCON concluded that there are no significant human health impacts expected to result from exposure of onsite workers to dodecylbenzene-impacted soils. The results of the amended risk assessment concluded that dodecylbenzene was not expected to leach to the groundwater and that exposure through volatilization and other exposure pathways are below levels of concern established by regulatory agencies (EMCON, February 1997).

6.1.2 Petroleum Aromatic Compounds

 Confirmatory soil borings drilled to assess the effectiveness of SVE in the area of the old garage and laboratory identified residual BTEX compounds at concentrations well below previous concentrations reported in soil samples collected prior to initiation of the SVE.



The majority of soil samples collected did not contain BTEX concentrations above PQLs and, with the exception of five samples, benzene concentrations were below screening level criteria. The absence and general reduction of volatile aromatic compounds and mass reduction are a good indication that SVE was effective in reducing and mitigating petroleum hydrocarbon impacts identified in the unsaturated zone in the area of the old garage and laboratory.

- Additionally, indirect evidence for the efficiency of the SVE in removing the mass of aromatic hydrocarbons in this area is also provided by the lower BTEX concentrations in groundwater samples collected from wells MW-6 and MW-7 directly downgradient from old garage and laboratory. Groundwater samples from these wells contained benzene at concentrations at or below MCLs, and showed a sharp decline from previous BTEX data collected prior to SVE shutdown.
- Although local soil zones containing benzene are present above screening level criteria, further operation of the SVE to remove these residual compounds does not appear warranted. A respirometry test performed at the completion of SVE provided evidence that these compounds may attenuate naturally, without further active remediation.

6.1.3 Volatile Organic Compounds

- Chloroform was the most frequently detected VOC in the closure and post-closure samples analyzed and was reported in the area of the clarifier between Building 2 and 14. Chloroform in this area was not reported below a depth of 25 feet bgs and is contained above a fine-grained clayey horizon at depths to 20 to 25 feet bgs. Chloroform concentrations were not reported above the PRG or the screening level criteria. The lateral extent of chloroform in this area has not been delineated to "nondetectable" levels, but has been delineated to concentrations below screening level criteria and PRGs.
- Methylene chloride reported in closure samples collected below the Building 2 and 14 clarifier is limited. The absence of methylene chloride in the soil samples collected from borings drilled through and around this former clarifier location, suggests that the presence of this compound is limited. Its presence in the one closure sample collected from this area also suggests that it may have been an artifact of laboratory contamination.
- The low concentrations of TCE, 1,1-DCA and dichlordifluoromethane identified from soil samples collected below the former Building 2 and 14 clarifier are anomalous. The lateral extent of TCE, 1,1-DCA and dichlorodifluoromethane appears localized below the former clarifier between Building 2 and 14 and has been delineated laterally above the water table by the post-closure borings EB-9, EB-10 and EB-11. The presence of these compounds is



- anomalous given they have not been reported in soil samples collected from Pre-Closure or Closure sampling programs, nor has their use been documented at the site.
- The distribution of TCE in soil samples collected around Building 2 and 14 does not match that of chloroform as it was reported in samples collected below, not above, the fine-grained clayey interval encountered in boring EB-8 at a depth of 20 feet bgs. Given the higher volatility of chloroform, if these VOCs were from the former clarifier, it would be anticipated that TCE would be present above the clayey horizon not just below. One soil sample collected at a depth of 30 feet contained a TCE concentration slightly above the RWQCB screening level criteria. None of the anomalous VOCs reported in soil samples collected from boring EB-8 contained concentrations in excess of PRGs.

6.1.4 Formaldehyde

Formaldehyde was reported in closure samples and subsequent post-closure samples collected to a depth of 20 feet in AGT Area V. The highest concentrations in soil samples collected in this area are found at depths of 5 to 10 feet bgs. Although the vertical and lateral extent of formaldehyde was not delineated to "nondetectable levels" by the five borings within and adjacent to AGT Area V, none of the soil samples contained concentrations in excess of the screening level criteria or the PRG.

6.1.5 pH

- With the exception of six soil samples collected beneath the site, the pH in site soils
 generally range from 7 to 9.5. Five soil samples with pH values equal or over 10, indicating
 alkaline conditions were encountered below areas where alkaline materials were stored or
 managed (caustic unloading sump, soda ash unloading sump and spray dryer sump) or
 below waste management units (main gate clarifier and brine tank). The sample collected
 adjacent to the caustic unloading sump (HA-10) contained the highest pH in the soil at 11.6.
- The low pH reported in soil sample S-2 (4.3) and subsequent confirmatory soil samples
 collected at the conclusion of removal operations, indicates that low-pH soils were
 excavated. The shallow depth of the confirmatory soil sample of 5 feet bgs indicates the
 affected soil was limited in vertical extent below the former acid tank containment area.
- Local elevated pH conditions in the soil do not appear to have affected the shallow ground water beneath the site. Groundwater samples collected during the post-closure monitoring program exhibited a pH ranging from 6.6 to 7.5.



6.1.6 Phosphates, Ammonia and Chloride

- The samples analyzed for phosphate contained concentrations that are not considered significant, nor above what may be expected to occur naturally in native soils.
- Samples analyzed for ammonia contained concentrations well below the industrial PRG and were below the screening level estimate. The one exception is the sample collected from within AGT Area V (AV-A) which contained an ammonia concentration of 470 mg/kg that approached the screening level estimate of 484 mg/kg. Ammonia was not reported at concentrations above PQLs in soil samples collected to depths of 10 and 20 feet bgs in AGT Area V. Elevated concentrations of ammonia reported from closure samples collected in that area appear to be limited in vertical and lateral extent to less than 5 feet.
- Chloride was reported at concentrations above the screening level criteria in two soil samples collected below the former "chlorimide system" (AGT Area I). Chloride was also reported in two soil samples collected from AGT Areas IV and V at concentrations near screening level criteria. The remaining samples analyzed for chloride are well below the screening level criteria.

6.1.7 MBAS

- The majority of MBAS samples collected as part of the closure program exceeded the screening level criteria. The highest concentration of MBAS (1,600 mg/kg) was reported in AGT Area V "detergent area" in soil sample AV-A. Although MBAS were reported above the screening level criteria, it does not appear to have greatly effected the shallow groundwater beneath the site, given that only 3 of 8 groundwater samples collected from onsite wells exceeded the secondary MCL of 0.5 mg/l.
- Fourteen soil samples collected for analysis of MBAS from borings in and around AGT Area V contained MBAS concentrations ranging from 1.9 to 12 mg/kg, well below previously reported closure sample concentrations. Based on soil samples collected from post-closure borings, the vertical extent of MBAS below the former AGT Area V Tank farm is limited to soils less than 5 feet bgs. The lateral extent of MBAS was not completely delineated by the borings drilled to a depth of 10 feet around the former AGT containment. Soil samples from borings EB-16 and EB-18 contained MBAS at low concentrations at or below screening level criteria

6.2 GROUNDWATER

The extent of the BTEX plume has been delineated on the subject site. BTEX
concentrations in excess of primary MCLs were reported in well MW-6 centrally located on



the site. Data collected in February 1997 show generally lower concentrations of BTEX compounds in the groundwater samples collected. The occurrence of BTEX in the groundwater has remained relatively stable since monitoring began in 1992 with the highest concentrations reported in samples collected from wells MW-6 and MW-7, centrally located on the site.

- The reduction in BTEX concentrations in groundwater samples collected from well MW-6 and MW-7 can be in part attributed to a reduction in source area mass and the completion of the SVE program upgradient of wells MW-6 and MW-7. This decrease in concentration also provides indirect evidence that the mass of petroleum hydrocarbons and VOCs in the soil has been substantially reduced by the SVE in the area of the old garage and laboratory.
- In general, with the exception of 1,1-DCA, VOC concentrations were lower and in some instances compounds were not detected in locations where they had been encountered during previous sampling events. With the exception of the groundwater sample from well MW-12 that had a TCE concentration of 12 μg/l, no VOC concentration reported above PQLs was above its respective MCL. Using TCE, 1,1-DCA, 1,2-DCA and chloroform as indicators, the distribution of VOCs from groundwater samples collected supports prior hypotheses and suggested contribution from offsite sources
- Although anomalous, the small mass of TCE identified above the water table at low concentrations in soil samples collected from boring EB-8 do not appear or may have a negligible impact on shallow groundwater. Groundwater samples collected from wells MW-6, MW-7 and MW-11, down- and cross-gradient from exploratory soil boring EB-8 did not contain TCE at concentrations above PQLs. Historically, TCE concentrations in wells MW-6 and MW-7 have remained stable.
- Formaldehyde, although reported in soil samples collected from AGT Area V, was not reported at concentrations above the PRG for tap water. The distribution of formaldehyde with the highest concentrations reporting in a well located centrally to the site is not consistent with closure and post-closure sampling data or its reported use at the site. Given that formaldehyde was reported in soil samples collected in AGT Area V at relatively low concentrations and below screening level criteria and it was reportedly used in that area, the highest concentrations of formaldehyde would be expected in wells MW-2 or MW-13 given historic and recent groundwater flow directions. The highest concentrations of formaldehyde would not be anticipated in wells MW-6 and MW-7, located in the central portion of the site, away from suspected source areas, or areas of reported use.
- Three groundwater samples collected in February 1997 contained MBAS at concentrations above the secondary MCL of 0.5 mg/l. The limited occurrence of MBAS above the secondary MCL suggests that this compound generally has not leached into the shallow



- groundwater from sources within the site. Sampling in the area of AGT Area V showed concentrations of MBAS to be limited to shallow soils at depths less than 5 feet bgs.
- Chloride was reported in all groundwater samples collected at concentrations of 98 to 9400 mg/l. The highest concentrations were reported in groundwater samples collected from wells MW-6 and MW-7, centrally located within the subject site. The secondary MCL for chloride of 500 mg/l was exceeded in all groundwater samples collected except for those from upgradient well MW-1 and downgradient well MW-12. The source for elevated chloride concentrations in this area could be the former bleach holding tank in Building 2.



7.0 SUMMARY OF FINDINGS

The closure and post-closure assessment data shown for residual COCs have been addressed for the site. In summary, the following are provided in support of "no further action" at the subject site:

- PRGs designed to establish concentrations of COCs in soil that would be protective of human health at an industrial site, were not exceeded in any of the soil samples analyzed from closure and post-closure sampling;
- Petroleum hydrocarbons in the diesel and oil ranges were not reported in closure and postclosure soil samples collected below 10 feet bgs at concentrations in excess of the screening level criteria (1000 mg/kg). The assessment of petroleum hydrocarbons identified from closure samples with concentrations in excess of screening level criteria has been completed and delineated both laterally and vertically;
- Risk assessment has provided an analysis of uncertainty and risk regarding the alkylate unloading and alkane tank area showing the residual petroleum hydrocarbons, to a depth of 30 feet, not to be a threat to human health and shallow groundwater;
- The absence and general reduction of volatile aromatic compounds and mass reduction are a good indication that SVE was effective in reducing and mitigating petroleum hydrocarbon impacts identified in the unsaturated zone in the area of the old garage and laboratory;
- The former UST under the southwestern comer of Building 8 was removed and closed consistent with LACDPW requirements;
- Groundwater sampling data indicates stable and declining BTEX concentrations. BTEX
 concentrations above primary MCLs are delineated onsite and are historically confined to
 the central portion of the property;
- With the exception of TCE in one sample from a downgradient well, the majority of VOC concentrations are below MCLs. The distribution of VOCs supports prior hypotheses that there is an offsite source;
- Formaldehyde concentrations in groundwater samples collected are below PRGs with the highest concentrations reported in samples collected from wells centrally located on the property, and;
- Three groundwater samples collected in February 1997 contained MBAS at concentrations above the secondary MCL of 0.5 mg/l. The limited occurrence of MBAS above the secondary MCL suggests that this compound generally has not leached into the shallow groundwater from sources within the site.



The two exceptions to completion of site assessment activity are delineation of the lateral extent to "nondetectable levels" of chloroform and formaldehyde in soils around the former Building 2 and 14 clarifier and AGT Area V. Given the concentrations of these COCs are low, below screening level criteria and below PRGs, the extent of delineation appears adequate in these areas. Given the above data generated for the site, ENSR requests that the RWQCB consider issuance of a "no further action" letter for the soils and groundwater at the subject site.



8.0 REFERENCES CITED

- DWR, Bulletin 104, 1961, Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County-Appendix A Groundwater Geology: State of California Department of Water Resources-Southern District, Los Angeles, California.
- EMCON, February 10, 1997, Dodecylbenzene Health Risk Assessment Addendum, The Dial Corporation Main Facility, South Gate, California: EMCON, Sacramento, California.
- EMCON, July 1, 1996, Closure Plan, The Dial Corporation, Main Facility, South Gate, California: EMCON, Burbank, California.
- EMCON, June 13, 1996, First Quarter, 1996 Progress Report, The Dial Corporation Main Facility and South Parking Lots Sites: EMCON, Burbank, California.
- EMCON, June 5, 1996, Former Dial Facility Main Area, Dodecylbenzene Workplan: EMCON, Sacramento, California.
- EMCON, May 20, 1996, Response to RWQCB February 13, 1996, Review Letter: The Dial Corp Main Facility, South Gate, California: EMCON, Burbank, California.
- EMCON, May 2, 1996, City of South Gate Municipal Supply Wells Near the Dial Corporation Main Facility and South Parking Lot Sites: EMCON, Burbank, California.
- EMCON, February 23, 1996, Remediation Progress Update (December 1995), Former Dial Corp Facility, South Gate, California: EMCON, Burbank, California.
- EMCON, November 7, 1995, Former Dial Corporation South Parking Lot Facility (Offsite Well Research): EMCON, Burbank, California.
- EMCON, January, 1994, Dodecylbenezene Health Risk Assessment: EMCON, Sacramento, California.
- EMCON, July 12,1993, Soil Vapor Extraction Test Report (Old Garage and Laboratory), The Dial Corporation Main Facility, 9300 Rayo Avenue, South Gate, California: EMCON, Burbank, California.
- EMCON, July 9, 1993, Analysis of Dodecylbenzene-impacted Soil, The Dial Corporation Main Facility, South Gate, California: EMCON, Burbank, California.
- EMCON, April 9, 1993, Phase IV Assessment Report-Main Facility: The Dial Corporation, South Gate, California: EMCON, Burbank, California.



- EMCON, August 5, 1992, Phase II and III Subsurface Assessment Report-Main Facility, EMCON, The Dial Corporation, South Gate, California: EMCON, Burbank, California.
- Fugro, December 16, 1996, Interim Closure Assessment Deliverable (File 95-066), The Dial Corporation Main Facility, South Gate: Fugro, West Incorporated, Ventura, California.
- Fugro, September 30, 1996, (File 95-066) Closure Plan Addendum, Former Dial Corporation Main Facility, South Gate, California: Fugro West, Incorporated, Ventura, California.
- Fugro, July 30, 1996, Closure Plan Addendum, Former Dial Corporation Main Facility, South Gate, California: Fugro West, Incorporated, Ventura, California.
- LACDPW, April, 1990, Hydrologic Report 1988-89: Los Angeles County Department of Public Works, Los Angeles, California.
- Phase One Incorporated, November 26, 1991, Phase I Environmental Assessment for The Dial Corporation, 9300 Rayo Avenue, South Gate Facility, California: Phase I Incorporated.
- RWQCB, December 24, 1996, Former Dial Facility Main Area 9300 Rayo Avenue, South Gate (file No. 95-066): California Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California.
- RWQCB, August 16, 1996, Former Dial Facility Main Area, 9300 Rayo Avenue, Southgate (File No. 95-006); California Regional Water Quality Control Board Los Angeles Region, Los Angeles, California (response to Risk Assessment proposal).
- RWQCB, August 8, 1996, Former Dial Facility Main Area, 9300 Rayo Avenue, South Gate (File No.95-066): California Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California.
- RWQCB, May 1996, Interim Assessment and Site Cleanup Guidebook: California Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California,
- RWQCB, February 13, 1996, Former Dial Facility Main Area, 9300 Rayo Avenue, South Gate, (File No. 95-066): California Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California.
- RWQCB, July, 1995, Voluntary Oversight Agreement: California Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California,
- U.S. EPA, September, 1995, Region IX Preliminary Remediation Goals, Second Half of 1995: U.S. EPA Region IX, San Francisco, California.
- U.S. EPA March 1986, September 1987, "Water Quality Advisory Documents: U.S. EPA, Washington, D.C.



TABLES

PLATES

		Sample	Petro	leum Hydroci	arbons		Aromatic C	ompounds	***************************************	Volatile Oroz	nic Compound	is (1)	***************************************		THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO I		***************************************	KK444KK4444000000000000000000000000000		*****
LOCATION	Closure	Depth	TPH	TPH	ТРН	1	I	Ethyl		Chloro	Methylene	1,2,4	1,3,5	 	***		[1	Other
	Sampling	(feet below	C4-C12	C13-C22	C23+	Benzene	Toluena	benzene	Xylenes	form	Chloride	TMB	TMO	Form.	ρН	Phosphate	Chloride	Ammonia	MBAS	Analytes
	Points	ground	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method
		surface)	9015FC	8015FC	B015FC	8020	8020	8020	9020	8260	8260	8260	8260	8315	9045	365.2	300 1	350 2m	425,1m	Various
		*	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Practical Quantitation Limits	1		0.5	10	10	0 005	0 005	0 005	001	0.005	0.01	0 005	0.005	2			10	10	1 1	Various
PRG	1		none	nane	none	3.2	2800	890	990	11	25	none	none	100,000	попе	none	none	none	none	V 8010113
1 1 2 G			1.651.15	- UIRE	none	- J.	2000	0.30	830		20	1 Julie	1 IIIAIO	100,000	Tone	11010	none	none	1 HOHE	
UNDERGROUND TANKS			***************************************	***************************************				VA 1000 Phy minorholomocolomocolomo	7 177											
Former Diesel Tank next to	None					·		Section 1994 Annual Management Control							·		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		<u> </u>	
Firestone Blvd. (10,000 gal.)	None					-				***	·············	ļ								
Thestorie biva. (10,000 gail)					s							ļ	-	,					<u> </u>	
Former Alcohol Storage	None		***************************************				Carlo Managarine Constitution C					1.7.0					****		 -	-A
Tank south of Bldg 15	None						·					ļ								reference from the front book and the shall be said.
(12,000 gal.)					www.a.a.a.a.a.			**************************************				_								
(iz.ouu gar)			 	*** ***********************************	ļ	-		** **				 	 				***************************************			
Former 100-gal Fuel	HA-1	1	ND	ND	ON	ND -	ND	NO -	ND	-		<u> </u>	<u> </u>							
Storage Tank below the	IMA-1	•		1	145	180	l nu	nu .	- T	***************************************			!				***************************************			
150,000 gallon water tank			!						***************************************											- V4 7 - 124477
too, and gallon states take				3.5 1.3.2.2000000000000000000000000000000000		!			*********							**************************************		***************************************		ļ
Former #2 Fuel Oil Tank	1A	12	I		ļ	ND	ON	NO	NO NO			_								(TOPL)
below the SW corner of Bidg	18	12	1			ND -	i	ND D	-§			!			.,	<u> </u>		~~~~		(TRPH)
8 (4,200 gal)	North	8	ND —	A/F2	l		DN		ND						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					54
o (4,200 gai)	1 1		I	ND 36	ND ND	ND ND	ND	ND ND	ND			_							ļ	12
	South	8	ND				ND		ND					****** * :n*:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		**************************************			
	East	10	ND	150	ND	ND	ND ND	ND	מא	T-22/4/44/44/44/44/44/44/44/44		İ		***************************************			A A EXPERIENCE CONTROL	***************************************		
	West	10	1.1	160	ND	ND ND	ND	ND	0.017			<u> </u>								
Former Fuel (gasoline)	CB-1	5 to 50		OFFERD TO	TAGUE O FO	D DECLUTE			* 1 manuary 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				· •							
Tanks adjacent to the Old	CB-2	5 to 50			TABLE 8 FO							<u></u>						·	.	
Laboratory and Garage	CB-3				TABLE 8 FO							ļ				_	***************************************			<u></u>
(10,000 and 550 gal.)	CB-3	5 to 50		MELEK IO	TABLE 8 FO	KKESULIS		**************************************				ļ.	ļ				***			er enemaker der XVV Selver der der einse eine
(10,000 and 550 gar)							**********************	mm (
Former Diesel Tank, South-			.			l			ļ.,,			ļ		11. ***********************************				***************************************		•••
eastern corner of the Site	None				**************			•				<u> </u>			·		A. ARROWS A. A		 	
•						·											· · · · · · · · · · · · · · · · · · ·	** -50.00		
(10,000 gal)			!			.]						ļ	 							l
ff annual Florida Tandahaharan	1				ND								ļ							[
Former Brine Tank between	8T-A	8	ND	ND	1 · · · · · · · · · · · · · · · · · · ·										9.6	14	50			<u> </u>
RR tracks and west of	87.8	8	ND	ND NO	ND				F> 1 WWW.0000000 20 1 g						10	1.5	46			(TRPH)
Caustic Unloading Area	Sediment(4)		1			ND	ND	ND	ND.	ND	ND	NO	ND		10.13		****** ba.s.s			265
Former Acid Tank	1	_			_		·										**********************			
Containment, west of Bldg 8	B-1	6	I	<u> </u>								ļ			7.4	ļ	*			
Containment, west of Bidg a	8-2	6					l							Named Superior Action	8.4			- ••	-	
	B-3	6	I			,			******						8.2					l
	B-4	6		0000 SHIMMA NOV FA NYOMBI							*************************				8.4		CONTRACTOR AND	A A A A A A A A A A A A A A A A A A A		
	S-1	3			de monocommonos de la grana	1, 20000 00000000								*****	8.4			~~****		
	5-2	3							**************************************			 	1		4.3		· V			
	S-3	3							2			<u> </u>			7.5			***************************************		
	S-4	3	1					4-1-							7					
	Ş-5	5								ANT MINISTER					7.8					
A80VEGROUND TANKS									**************************************											
			I					··		* ***		†		<u>_</u>				***************************************		
AREA I - "Chlonmide System"	AI-A	4				1			·			I	-		1/4 P 41 - 144 /**********************************	-	2600	V. Ve budh		
Tanks east of Building 1	Al-B	4					.		f				—				28		······	I

TABLE 6 Analytical Results for Closure Samples Sumps, Drains and Clairfiers

		Sample	Petrol	eum Hydroca	irbons	L	Aromatic Cor	npounds		Volatile	Organic Comp	ounds(1)								
LOCATION	Closure	Depth	TPH	TPH	TPH			Ethyl		Chloro	Methylene	1,2,4	1,3,5			1				Other
	Sampling	(feet below	G4-C12	C13-C22	C23+	Benzene	Toluene	bonzene	Xylenes	form	Chloride	TMB	TMB	Form,	pH	Phosphate	Chloride	Ammonia	MBAS	Analytes
	Points	ground	Method	Method	Methad	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method
		surface)	8015FC	8015FC	8015FC	8020	8020	8020	8020	8260	8260	8260	8260	8315	9045	365 2m	300 1	350 2m	425 1m	Various
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Practical Quantitation Limit			0.5	10	10	0 005	0 005	0 005	0 D1	0.005	0.01	0.005	0 005	2		0.5	10	10	1	Various
PRG			none	поле	none	3.2	2800	690	990	1.1	25			100,000	none	eton	none	nane	0.000	
								***************************************	***************************************			MANAGE PROPERTY OF THE PROPERT		wermowenddddddddddd						
CLOSURE EXCAVATION STOCKPLIES										**************************************	W.Y. W.									
arifier Setween Bidg 2 and	K-1,2,3,4(4)	2 (5)	.					The Value of Control o												130 (TRP
(Closure Samples QE and QW)	,,,,,							,											•	Title 22 Met
in Clarifier preceeding	R-SP 1, (4)	Z (6)	ND	ND	21				***************************************	ND	NO	ND	ND		9.6(6)	GN	48.7(6)	***************************************	54.3(6)	
wer dischavge, south gate losure Samples R-1 and R-2)	2,3 and 4																		*************	
mp inside Bldg 8, Central	ZX-SP-1	2 (6)													7.1				* ****	
rt to Oleum Tanks osure Sample ZX)								Annes, a la l												
, , , , , , , , , , , , , , , , , , ,			l						***************************************		***************************************				****					
mp within Area III. Oleum	G-SP-1	2 (5)													6.9			- 20,		
iT Containment area osure Sample G)															<u> </u>		 	 		
·			I			l				1							l	1		

NOTES

Refer to PLATE 2 for sample locations

Certified Analytical Laboratory Reports and Chain-of-Custody Documentation are provided in Appendix B.

ALL Methods shown are U.S. EFA Methods unless otherwise listed.

ND = Not detected at the practical quantitation limit

ND(<50) = Not detected at an elevated method detection limit shown in paranthesis. Elevated limits due to matrix interfearences.

PRG = Preliminary remediation Goal, U. S.EPA Region IX, September, 1995, for industrial soils

TPH-FC = Total Petroleum Hydrocarbons, Fuel Charaterization (C4 - C12, C13 - C22, C23+)

- 1,2,4 TMS = 1,2,4 Trimethylbenzene
- 1,3,5 TMB = 1,3,5 Trimethylbenzene

Form = Formaldehyde

MBAS = Methylene Blue Active Substances

- (1) Volatile Organic Compounds reported in the soil samples collected and analyzed by EPA method 8260. Remaining VOCs from EPA 8260 Analysis were not reported above method detection limits.
- (2) Liquid sample from fluid that was released into the sump pit upon removal of the conveyance piping.
- (3) Sample additionally analyzed for PCBs by U S EPA Method 8080
- (4) Stockpile samples from remedial excavation activities were additionally analyzed for 22 CCR metals and Total Recoverable Petroleum Edyrocarbons (TRPH), by U.S EPA Methods 6000/7000 series and 418.1
- (5) Soil samples were collected approximately 2 feet into the stockpile
- (6) The value reported represents the arithmetic average of the four individual samples. The samples were not composited for these analytes

TABLE 6 Analytical Results for Closure Samples Sumps, Drains and Clairflers

		Sample		eum Hydroc			Aromatic Cor	·			Organic Com						·····			
LOCATION	Closure Sampling	Depth (feet below	TPH C4-C42	TPH	TPH	Benzene	Teiners	Ethyl	Xylenes	Chloro	Methylene Chloride	1,2,4 TMB	1,3,5 TMB	East-		Bhanabata	Chloride	Ammonia	MBAS	Other
	Points	diser perow	C4-C12 Method	C13-C22 Method	C23+ Method	Method	Toluene Method	benzene Method	Method	form Method	Method	Method	Method	Form. Method	pH Method	Phosphate Me;hod	Method	Method	Method	Analyte Method
	,	surface)	8015FC	8015FG	8015FC	8020	8020	8020	8020	8260	8260	8260	8260	8315	9045	365 2m	300.1	350 2m	425.1m	Various
		İ	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Practical Quantitation Limit		Ī	0.5	10	10	0 005	0 005	0.005	0.01	0 005	0.01	0.005	0.005	2		0.5	10	10	1	Various
PRG	9445 9 9 9445		none	nane	nche	32	2800	690	990	11	25			100,000	попе	enon	попе	none	none	
			 									.						<u> </u>		A 43. ADMINISTRAÇÃO
Clarifier between	Q-E	8			ļ				·	0.11	ND	ND	ND	***************************************		***************************************				Ambier A Marchella for excessionates - V
Bidgs, 2 and 14	Q-W	8				·				0.059	0.026	ND	ND		****				 	CONTRACT TRACT Y TO A PRINT
-				***************************************				***************************************				1	_							www.www.v.v.y # #### y'
Main Clarifier preceeding	Ri	16	DO	49	מא					ND	NO	0.65	0.19		10.1	ND	85		230	
sewer discharge, south gate	R2	16	0.61	13	ND					NO	NO	ND	ND		9.9	ND ND	43		47	
Clarifier North of storm water		1								LIBY OF	1		ND: -0.01			A P-1	440		848	
clastiller north or storm water retention tanks	S Sw	10 8	0.56 1.5	170 200	ND ND					ND(<0.5) ND(<0.2)	ND(<0.5) ND(<0.2)		ND(<0.2) ND(<0.1)		8.4	0.54 3,1	110 200		310 57	ļ
Top Start III delt F Book Frage	1 3"	ľ							!	140(~0.2)	(40(-0,8)	142/20.1)	render.		0.1	- 3,1	200		 "	<u> </u>
Clarifier southeast corner of	Т	8	ND	NO	ND		-			ND	ND	ND	ND				!		†	
Bidg 15												1								
	-		and the same of th	_ ^	I															
Clarifier east of Bldg. 8	U-1	6,5	ND	ND	ND		l					ļ			8.1		110	ИО	.	
	U-2 U-3	6 55	00 00	ND NO	ND ND						<u> </u>	_			8.2 8.3		75 150	NO NO	1	
	0.3	23	עא	NO .	NW			~~ m					<u> </u>		8.3		150	NO		
//////////////////////////////////////	***************************************	•						<u> </u>			 	-	-			·		<u> </u>	-	l
DRAINS								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				1	ľ			***************************************				
						-		***************************************	-7 (41.175 4.100)											wadowalk admitted 1991 of 1991
Trench drain between	VD.3	a						***************************************		0.054	ND	ND	ND	2.7	*** 64		330	ND		
Bidgs 1 and 14	V-N	6			AMORRA N					0.033	ND	ND	ND	ND			55	ND	ļ	
	V-NM	65 65		AAA 20.0AAA A 3000 AMMININGAA	***************************************	NY IS AND DESCRIPTION OF THE PARTY.				ND	ND	ND	ND	ND			580	ND_		EN AL PROPERTURE MARKET MARK
	V-SM V-S	65			***************************************	************************		1		ND ND	0.012 ND	ON QN	NO NO	ND ND			3000 44	ND ND		
		, ,	handed and an investment of the second has					A VARTORIO B. N. A AMPRONISSE COMO ARRONA ARRESTORMA		110		(* w'	1	.,,,				***	 	
Drain cast of Area V. AGTs	w	None		······································					>*************************************		1	—	İ			enterent reserve en et vic. Electrosta et la accessor				
and the Formaldehyde lanks						,													T	
		_																		
Sumpleast of Bidg 4 and old cooking tower	X-1.3	3	!	'Ver'er' de de Verene de de de de de de de de de de de de de			l						ļ					ND		
old Cooking Idwel			-	er a var varanavar er			<u> </u>		ļ	-			ļ			**************************************		 -		
Storm drain near south gate	E.Y	3	-		***************************************					ND	DI	NO	ND		9		· · · · · · · · · · · · · · · · · · ·			
						-												İ		estal area habited we
Storm drains outside of	Z.3	3	ФИ	NO	ND										8.2		52		18	
Bldg 6	A1	3	NĐ	NO	26										8.6		490		2.8	
	81	Ε	ON	ND	NO			Į <u> </u>				.	ļ		9.3		130		2.8	
	C1	3	0.78	48	76								<u> </u>		10.1	-	140		5	
Storm drams southwest of	DI-1	3	l				 		 	 			†		9.2	·	100	 	1	-
Bidg 1	E1-1	3			ļ		 	1	.,		-		!		9.6	•	110	 	1	<u> </u>
]			1			1	1					l		1		
Storm drains north of Bldg 7	F.1	3						.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							8.3	NO			5.6	
	G.1	3													8.9	СИ			2	
	н.1	3		~											8.7	СИ			410	
	GH.3	3	ND	ND	ND	 												 		
Bldg, 5 floor drain	11-A	4		waterman v vonestrone									 		8		330		6.1	l
	11-8	4	3 0,000,000 10 1000	nn n vin Ladella	. 4.4.4.4.4.0000.0000.00000000000000000			* *****	And and the second seco	12.00m1			!	0.2000000000000000000000000000000000000	9.4		170		43	
	11-C	4		l	***************************************					1			1		9.2		320		2.8	**************************************
	I1-D	4									And and				7.5		350		87	
	•									I										
Bidg 8 trench draw	J.1.N	6	ND	ND	ND										8.4		110	ND		L
	J.1.MID	6	ND	NO	ND ON					 	ļ		ļ		7.7		36	ND		
	2.1.5	5	ND	NĐ	ON			4 - 44 - 444-444-444-444-444-444-444-44		 			ļ		8.8	!	510	ND	.	
Storm drain east of Bldg 14	J		l		,,		ł		·				<u> </u>		8,9	<u> </u>			J	!
anam uram cast Urahin 14	K4	3	1		j	I	1	l	.1	1	1	1	1	. 1	0,3	1	45	1	1	

TABLE 6 Analytical Results for Closure Samples Sumps, Drains and Clairflers

LOCATION	Closure	Sample Depth	TPH	eum Hydroc TPH	TPH		Aromatic Cor	Ethyl		Chicro	Organic Comp Methylene	1,2,4	1,3,5		E	T		1	1	Other
ECCATION	Sampling	(feet below	C4-C12	C13-C22	C23+	Benzene	Toluene	benzene	Xylenes	form	Chloride	TMB	TMB	Form.	рН	Phosphate	Chloride	Ammonia	MBAS	Analyte
	Points	ground	Melhod	Method	Melhod	Method	Melhod	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Metho
		surface)	8015FC	8015FC	8015FC	8020	8020	8020	8020	8260	8260	8260	8260	8315	9045	365 2m	300.1	350 2m	425.1m	Variou
		•	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	units	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg
Practical Quantitation Limit		1	0.5	10	10	0.005	0 005	0.005	0.01	0 005	0.01	0 005	0.005	2		0.5	10	10	1	Variou
PRG	1		none	none	none	32	2800	690	990	11	25	<u> </u>		100,000	rione	none	none	none	none	
	1			1	1	İ		A			The state of the s	1								
		00000																		
<u>SUMPS</u>						.,, -, -, -, -, -, -, -, -, -, -, -, -, -	~=====													
ump sump next to the NW	None	None				-						ļ		······································			ļ			
Corner of Bidg 2 and the	IAGUE	None												*		· · · · · · · · · · · · · · · · · · ·	<u> </u>			
leach tank			!		au	ļ						_								
			l							·**(Waannaarrerrr		ł					3			
olydrum sump, NE comer	HA-9	1								ND	ND	ND	ND	·		l				l
f BLOG 2			[********************************	l	*****		***************************************	***************************************	** ***** *****************************		*			a sind of the street of the st	<u> </u>				
				TO THE THE THE THE THE THE THE THE THE THE	Fade to a manuscriptor				AND THE PROPERTY OF THE PROPER						A E E E E E EVITTITI CYTYTTICIONIAMMANACH A					and the state of t
Sump east ਨੀ ਲੇਲੇਗੂ 4 and	C.1	3		***************************************	- Atootom			box	**************************************						***************************************	***************************************		ND		****
old cooling tower																				
					annua vvvvv													,,,,,		
Wain sump by Bldg 15	D	7	מא	COM	סא				95 8.00	ND	ND	מא	MD							
Meson unloading guest	_		 		 			<u></u>		1			•••••			-				ļ
ilkane unloading sump	E	None	······································	 						ļ						 			~	.
			!			l	<u>{</u>					<u> </u>					 			
Sump due South of BLDG	F	None				ļ			•		 	<u> </u>	1	~~			 		ļ	
and North of RR tracks		140116	Į			 		}		}	}	vum mmmnn					<u> </u>			
			··· · · · · · · · · · · · · · · · · ·				••••••			***************************************	<u> </u>		·					***************************************		ļ
iump within Area III, Oleum	G-1	4						and the second				ł		wh. warmer e e e e e e e e e e e e e e e e e e	8,1	12	30	***************************************	ND	
GT Containment area	liquid(2)		ND	ND ON	ND	***************************************									10.11(2)	30(2)	500(2)	12(2)	790(2)	
				1								1								
Sump east of Bidg. 1 and	B144	45				I				1			*** *********************************				330			
orth of Area II AGTs																1	1.4			
							······································													
rump aump MVV corner	CT4	4				l					ļ						46			
ildg 2 chtorine tank					ļ									***************************************						
Soda Ash Unloading Sump	42.7				1						.			*************						
etween Bidgs, 4 and 8	JN SL	3			├ ──							l			9.4 10.2					
www. Diogs. 4 and 0	1 33	*			<u></u>				A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.						14/ ₅		***.***********************************	***************************************		
3kkg, 5 Spray Oryer and	k	4			<u> </u>			}							9.5				27	
nain sump	L	4	****		l			<u> </u>		***************************************	-	 			10.1		***************************************		76	
	М	4			†		<u> </u>				-				8.9				13	
							<u> </u>					<u> </u>								£
Sump north of Area V, AGTs	5-N.3		ND	ND	NO	TOTAL POR BROOK SAME OF	£								8.2		22	ND		
ind adjacent to weigh station]					<u> </u>			
	www.																			and the second s
ump south of Area V, AGTs.	O-84 (3)	5	0.64	10	ND		¥ 04								9.6		90	ND		PCBs
rainage Sump for Area V	Q-SE (3)	5	ND	ND	ND				*		_	1			8.6		200	ND		ND(0.0
turno insuria Birin B. NC						****			·]						ļ	g.w		
Sump inside Oldg. 8, NE. Corner	SP.A SP.3	1 2	1.8 0.65	ND 11	3.2				·			***************************************		***************************************	8.8 8.9		100	25		
254 1 544	57,3	3	V.90	11	ND	}									₫,₩		180	73	*** ****	
iump inside Bldg 5	22	3	l	<u> </u>		<u> </u>						-				 _			81	
ciler Room		,	·····	}]		****		 	[<u> </u>	<u> </u>		¥1	
				 	<u> </u>		 			 							I			
iump inside Bldg. B, Central	ZX-1	-5				!	ļ ————			ł 		<u> </u>	l	***************************************	7.8	 				
ext to Oleum Tanks	ZX-2	3				m w.=	 				······································				7.9					
	ZX-3	3		1				<u> </u>	**************************************		†	<u> </u>			7.5	<u> </u>		······································		***************************************
	ZX-4	3			***************************************		***************************************							***************************************	6.6		,		-	***************************************
			***************************************											***************************************		CONSTRUCTION OF THE SECOND				***************************************
austic Unloading Sump	HA-10	t	***************************************		<u> </u>		I	***************************************	101 000000 0000			1			11.6					*************
ue North of Bldg 5				1						1	1	1	,							******
	No.				l	1	Lim								***************************************		***************************************			
			<u> </u>	1	T	T	1	I		1	T	1					<u> </u>			
CLARIFIERS	1		*	1	I			1	I	1	T	1				T		A CHARLEST AND FOR THE SECOND		l

TABLE 1
ANALYTICAL RESULTS for GROUNDWATER SAMPLES from PRECLOSURE and POST-CLOSURE ASSESSMENTS
DIAL CORPORATION, 9300 RAYO AVENUE, SOUTH GATE

Well No. and Elevation	Date	Depth to Water	Groundwater Elevation	Total Pictroleum Hydrocarbons	Benzens	Toluena	Ethyl- benzene	Xylanes	Chioroform	1,1-DCA	1,2-DCA	TCE	1,2-DCP	Formaldehyde	pH	Chlorida	Ammonia (NH3)	MBAS
(ft-MSL) MCL	Sampled	(feet)	(R-MSL)	(mg/L)	(µg/L)	(µg/L) 150	(µg/L) 680	(µg/L) 1750	(ug/L) 100	(µg/L) 5	(µg/L) 0.5	(μ g/L) 5	(µg/L.)	(mg/L) 5.5	pH Units 5.5-7.5	(mg/L) 500	(mg/L) 45	(mg/L) 0,5
MW-1	20-Apr-92	51 45	56.24	<1.0	NA.	NA	NA	NA	< 0.5	<0.5	<0.5	<0.5	<0.5	NA	NA.	NA	NA	NA
(107 69)	11-Sep-92	52.00	55.69	<0.5	<5	<5	≪5	<5	45	« 5	<5	<5	~5	NA NA	NA.	NA	NA NA	AM
	19-Mar-93	5 0.90	56 79	Water level only		_	_						1					
	30-Sep-93	48 95	57 74	40.05	<0.5	<0.5	<0.5 <0.5	<0.5 <0.8	<0.5 <0.5	<0.5 <0.4	<0,5 <0.3	<05 <04	<05 <03	NA NA	NA NA	NA NA	NA NA	NA NA
	08-Apr-94 14-Apr-95	46.39 46.08	59 30 61 61	<0.5 <0.04	<0.3 <0.3	<0.4 <0.4	<0.5	<06	<05	<0.4	<03	<0.4	<0.3	NA NA	NA.	NA	NA NA	NA.
	06-Dec-95	44.80	62.89	<0.04	<0.5	<0.5	<0.5	<1	<05	<0.5	<0.5	<0.5	<0.5	NA.	NA.	NA	NA	NA
	05-Mar-98	44 40	63 29	Water level only														
(109.58)	24-Fab-97	44.97	84.61	<0 Q5 to 0.5 (5)	<0.5	<1	<1	<2	<0.5	<0.5	<1	<1	<05	TR<0.025	74	220	12	0.14
MW-2	20-Apr-92	52 73	52 92	<10	NA.	NA	NA NA	NA	<0.5	<0.5	<0.5	<0.5	<0,5	NA NA	NA	NA	NA	NA
(105.65)	11-5ep-92	52 60	53.05	<0.5	<5	.s. <5	<5	√ 5	45	< 5	<5	<5	<5	NA	NA.	NA	NA.	NA
(//	19 Mar 93	51 17	54 48	Water level only									1					
1	30-Sep-93	49.84	55.81	<0.05	4	95	<0.5	0.8	<05	<0.5	₹05	<0.5	<0.5	NA NA	NA	NA	NA .	NA.
	06-Apr-94	47.74	57 91	<0.5 <0.04	2.5 1.4	<04 <04	<0.5 <0.5	<08 <08	<05 <05	<0.4 <0.4	<03 <03	<04 <04	<03 <03	NA NA	NA NA	NA NA	NA NA	NA NA
	14-Apr-95 05-Dec-95	45.50 44.32	50.15 61 33	<0.04 ≪0.04	1,4 <10°	<10*	<10*	<20*	₹05	<10°	<10°	<10*	<10"	NA I	NA	NA.	NA NA	NA
	05-Mar-96	43.85	61 80	Water level only	.,,,,,		,			· -								
(108.29)	24-Feb-97	45 12	63 17	<0.05 to 0.5 (5)	<0.5	<1	<1	<2	< 0.5	<0.5	<1	<1	<0.5	013	7 2	700	18	22
MW-3 (107 24)	20-Apr-92 19-Mat-93	53.80 53.63	53 44 53 41	NA Waterlevel only	NA.	NΛ	NA	NA	<0.5	<0.5	<0.5	26	₹05	NA.	NΛ	NA	NA	NA
(107 24)	19-Mar-93	62.30	54 94	Water level only														
	30-Sep-93	51 DG	58 18	Water level only														
	05-Apr-94	49 15	58 09	Water level only														
	14-Apr-95	47 04 45.85	60.20 61.39	Water level only Water level only										1				
	06-Dec-95 05-Mar-96	45.65 45.44	61.60	Water level only														
(109.06)	25-Feb-97	48 02	63.04	<0.05 to 0.5 (5)	<05	<1	<1	<2	<0.5	1.3	<1	34	<0.5	0.067	7.1	820	24	0 17
MW-4 (106.39)	20-Apr-92 05-Jun-92	52 40 52 59	53 99 53 80	NA Water bevel only	NΑ	NA	N/A	NA	⊴05	<0.6	0.6	29	≺0.5	NA NA	NA	NA	NA	NA
	19-Mar-93 30-Sep-93 05-Apr-94	51 23 49 96 47.95	55 18 56 43 58 44	Water level only Water level only Water level only									- And the designation of the state of the st	- recenting the property of th				
	14-Apr-95	45.88	60.51	Water level only										ļ				
	06-Dec-95	44 58	B1 71	Water level only										•		ì		
	05-Mar-96	44 21	52 18	Water level only				N/A	***	N. 2	NA	NA.	NA.	NA	NA.	NA.	NA	NA
(106.39)	24-Feb-97			NO SAMPLE	N.A	NA NA	NA NA	NA NA	NA	NA NA	IVA	nn.	INA	1 100	NA.	13/2	NA I	NA
MW-5	20-Apr-92	58 00	53 71	NA	NA.	NA	NA	NA	<0.5	₹5 1	<5*	1,400	<5*	NA	NA.	NA	NA	NA
(109 71)	05-Jun-92	58,21	53,50	Water level only														
	19-Mar-93	54 95	54 78	Water level only												1		
	30-Sep-93 06-Apr-94	53,82 51,63	56 09 58,03	Water level only Water level only											the state of the s			
	14-Apr-85	49 52	60 19	Water level only									ĺ					
	06 Dec-95	48 33	61 38	Water level only						1				1				
	05-Mar-96	47.78	6193	Water level only												n 18	l NA	NÁ
(109.71)	24-Feb-97			NOSAMPLE	NA NA	NA.	NA.	NA	NA NA	NA NA	NA NA	NA	HA HA	NA	NA NA	NA.	NA	NA.
MW-6 (106.88)	11-Sep-92 19-Mar-93	53,07 51 80	53.81 55 08	<0.5 Water level only	5.8	< 5	<5	<5	< 5	<5	<5	≺ 5	<5	NA NA	NA	NA	NA	NA
,,,	30-Sep-93	50 47	56 41	01	48	2	<0.5	0.9	<q5< td=""><td>≺0.5</td><td><0.5</td><td><0.5</td><td><0.5</td><td>NA</td><td>NA</td><td>NA</td><td>NA</td><td>NA</td></q5<>	≺ 0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA
	06-Apr-94	48.54	58 34	<0,5	53	18	0.5	0.7	<0.5	0.7	0.7	<0.4	<0.3	NA	NA	NA	NA NA	NA
	14-Apr-95	48 33	60 55	0.058	27	14	<05	<0.8	<0.5	05	<0.3 <0.3	<0.4 <0.4	<03 <03	NA NA	NA NA	NA NA	NA NA	NA NA
I	14-Apr-95	46.33	60.55	0.023	23	1.2	<0.5	<06	<0.5	0.5	1 ~13	l work	1 -0-2	1 1975	1474	144	1 144	INT.

TABLE 1
ANALYTICAL RESULTS for GROUNDWATER SAMPLES from PRECLOSURE and POST-CLOSURE ASSESSMENTS
DIAL CORPORATION, 9300 RAYO AVENUE, SOUTH GATE

Well No. and Elevation (R-MSL)	Date Sampled	Depth to Water (feet)	Groundwater Elevation (ft-MSL)	Total Petroleum Hydrocarbons (mg/L)	Senzone (µg/L)	Tajuene (µg/L)	Ethyl- benzane (ug/L)	Xylones (µg/L)	Chloreform (ug/L)	1,1-OCA (µg/L)	1,2-DCA (µg/L)	TCE (ug/L)	1,2-DCP (µg/L)	Formaldehyde (mg/L)	pH pH Units	Chloride (mg/L)	Ammonia (NH3) (mg/L)	MBAS (mg/L)
MCL				none	1	150	680	1750	100	5	0.5	5	5	5,5	6.5-7.5	500	45	0.5
(107.94)	06-Dec-95 05-May-96 25-Feb-97	45 17 44 80 44 48	81 71 52 08 53 46	0 11 Water level only <0 05 to 0 5 (5)	17 1.8	<0.5 ₹1	<0.5	<1 0 <2	<0.5 <0.5	05 088	0. s <1	<0.5 <1	<0.5	NA 3.224	NA 67	NA 3200	NA 5.8	NA 1.7
(Duplicate)	25-Feb-97	44 48	63.46	<0.05 to 0.5 (5)	2.8	~1	<1	<2	<0.5	0.91	<1	<1	<0.5	0 144	70	3300	48	3.8
MW-7 [107 01]	11-Sep-92 19-Mar-93	53 17 52 11	53 84 54 90	<0.5 Water level only	10	5.9	<5	<5	∻ 5	<5	≺ 5	< 5	<5	NA	NA	NA	AM	NA
	30-Sep-93 06-Apr-94 ⁽¹⁾	50 86 48 70	56 15 58.31	0.3 0.6	120 230	5	4.B	3 37	<0.5 2.3	13	0.6 1.1	0.6 1 B	2.0 1,8	NA NA	NA NA	NA NA	NA NA	NA NA
	14-Apr-95 ⁽²⁾ D6-Dec-95 ⁽²⁾ C5-Mar-96	46 48 45 22 44 73	60.53 61.79 62.28	NA 0.33 Water level only	70 55	3 9 2.7	13	20 19	0 4(1/) <0.5	2 1 1 7	<03 1.1	16 09	14	NA NA	NA NA	NA NA	NA NA	na Na
(108.26)	25-Feb-97	44.72	63.54	0 55 (C4-C12)	Ú 68	∢1	<1	24	17	1,5	<1	<1	<0.5	0.157	6.6	9400	13	0.14
MW-11 (110.43)	25-Feb-97	67 OS	63.35	<0.05 to 0.5 (5)	<0 5	41	Ǡ	<2	~ 05	0 68	-1	< 1	<0.5	0 149	70	1600	2.3	0.2
MW-12 {111.21}	24-Feb-97	47 89	53 32	<0 05 to 0 5 (5)	<0.5	∢1	<1	<2	<0.5	33	4 1	16	≺ 0.5	<0.02	75	98	27	0.5
MW-13 (110.76)	25-Feb-97	47.23	53.53	<0.05 to 0.5 (5)	១៩7	* \$	《 董	<2	< 05	33	41	~1	⊲05	40 03	73	1900	2.8	4.2
Tnp Blank	14-Apr-95 08-Dec-95	• •	**	0 26 <0 04	<03 <0.5	<0.4 <0.5	<05 <05	<0.6 <1.0	<05 <05	<04 <05	<03 <05	<04 <05	<0.3 <0.5	NA NA	NA NA	NA NA	NA NA	NA NA
	24-Feb-97			NA	<0.5	<1	~1	<2	<05	×0.5	<1	<1 <1	0.81	N/A	NA.	NA	NA	NA
Equip Blank	06-Dec-95 24-Feb-97			<0 04 NA	<05 <05	<0.5 <1	<0.5 <1	<1 0 <2	≠0,5 <0,5	≪□.5 < 0.5	<0.5	<05 <1	<0.5 <0.5	NA NA	NA NA	NA NA	NA NA	NA NA

NOTES:

Samples Collected prior to February 24 and 25, 1997 were analyzed by Golden State/CAS Laboratones Into , Canoga Park, California Sampets collected only February 24 and 25, 1997 were analyzed by CAPCO Analytical Services, Incorporated, Ventura, California MCL * Maximum Contaminant Levels for Organic Considering * Results in bold indicate samples with concentrations over MCLs.

NA = Not analyzed

- -- = Not applicable
- * = Method reporting limit elevated because the sample required diluting

(109.58) = Resurvey of well head elevations after site demolition (2/97)

- (1) Other VDCs by EPA Method 8260 detected were cis-1,2-Dichiaroethene (1.0 ug/L)
- (2) Other VOCs by EPA Method 8260 detected were, cis-1, 2-Dichloroethylene (1.C), Acetone (14th), Isopropylbenzene (0.3tr) and Naphtalene (0.5)
- (3) Coloromethane (1.7) was detected in the Method Blank for sampling date 14-Apr-95.
- (4) Dis-1,1 skehloroethene (cis 1,1-DCE) was detected in the groundwater sample collected from well MW-7 at a concentration of 1 Dug/L on 12/8/95
- (5) Total Petroleum Hydrocarbon practical quantitation limit range for C4 through C23+

CERTIFIED ANALYTICAL LABORATORY REPORTS ARE INCLUDED IN APPENDIX C

TABLE 2 CLOSURE SAMPLING SCHEDULE Sumps, Drains and Clarifiers

			NONE THE PROPERTY OF THE PROPE			Phase (l, III and	IV Asse	ssment A	\nalytes									Closure	Progra	n Analytes	eeeeoonii ka ka ka ka ka ka ka ka ka ka ka ka ka	***************************************		
LOCATION	Phase II, III and IV Assessment Sampling Points	Number of Soil Samples Analyzed Phase II -IV Assessments	TPH-FC Method 8015FC	BTEX Method 8020	VOCs Method 8010	Form, NASCI 487	PCBs Method 6080	pH Method 9045	Metals Method 6/7000	Total Cr. Method 7190	Phosphate Method 300 1	Chloride Method 300.1	Phenol Sample Screen	Closure Sampling Points	Number of Soil Samples Analyzed for the Closure Program		BTEX Method 8020	VOCs Method 8260		pH Method 9045	Phosphate Method 365.2	Chloride Method 300 1	Ammonia Method 350,2	MBAS Method 425 1	Assessmen and Closur Samples Analyzed (* (total)
<u>SUMPS</u>		700000000000000000000000000000000000000								***************************************									and				-A-1		
'ump sump next to the NVV Corner of Bidg 2 and the leach tank.	B-3	1	See A see and see a see					X						NONE		**************************************	-				-		A 500,000 00 (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)		-granden de la companya de la compan
alydrum sump. NE corner f BLDG 2	B-4 and S-2	2	X	- A - A - A - A - A - A - A - A - A - A	X	X	2.2.2.2.2 q; yb , y y	X			4 A A A A A A A A A A A A A A A A A A A		X	В, НА-9	44			X				selected and an extension of the selected and the selecte		2	3
ump east of Bldg 4 and ld cooking tower	B-11	1						X		×				C.1	1	W 26 a. and 60 distance and 60 distance of 60 dista	**************************************			***********			X	V VI L. N. VAN	2
rain sump by Bldg, 15	B-13	1	X	***************************************	_	. <u>x</u>					2 M.A.			Đ	1	X		х							2
dkane unloading sump	B-15, B-22, B-23,B-24, B-41, B-42 B-53 and H-1	41	**************************************	**************************************	37 110		A P 4 WY MINING VV N	Voter p. d. d.			A			NONE				-					WAY IN MY WAY 12 CA		41
Sump due South of BLDG and North of RR tracks	B-18	2	X				. / _2.00, 0.00000000	X			X			NONE	50000000000000000000000000000000000000	A. 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 - 148 -							a4 - - - - - - - - - - 	b. 100x A40x 100x 100 100 100 100 100 100 100 100	2
ump within Area III, Oleum GT Containment area	B-17	1		* ****************************			E. EAFERA A MONOMONIO	X			**************************************			G-1	1	. A 2 3 3 4 4 4 300000000000000000000000000				A A A A A A A AMERICAN PIC A A.	X	X		X	2
Sump east of Bidg 1 and orth of Area II AGTs	NONE										A A A A A A A A A A A A A A A A A A A			B1-H	1							X			ą,
rump sump NW corner Bidg 2 chlorina tank	NONE			A 2.2.2 (AMERICAN AMERICA) (AMERICA)		The state of the s		A 250AA AAAAA AAAA		10,000				СТ-І	1	***************************************				A A A A A A A A A A A A A A A A A A A	**************************************	х			
oda Ash Unloading Sump etween Bldgs 4 and 8	S-15	1						×			X	X	- ,,,	JN and JS	2					X	**************************************	C T7 &		*****	3
Bldg. 5 Spray Dryer and nain sump	NONE						A. 4. (a) (a) (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b			a				K,L, and M	3					X	Q.3			X	3
Sump north of Area V, AGTs and adjacent to weigh station	S-12	1			X	X				es commente com e e , a mestalanta	- 1111 77 .0000			S-N.3	1	X				_ <u>X</u>	## #	X	X		2
Sump south of Area V, AGTs Grainage Sump for Area V	S-11	1	X				- X				A - WAR	**************************************		O-M and O-SE	2	X (2)				X		X	X	414. (A WWW F WY	3
Gump inside Bldg 8, NE Corner	NONE			100000 V VV										\$P.A and SP.3	2	X				X		X	X		2
Sump inside Bldg 5 Boiler Room	NONE							- V WY90 00'Y 90'		122222	A A A A A A A A A A A A A A A A A A A		·	ZZ	1					3.¥	2° A AAAAAA 2000000000000000000000000000			X	1
Sump inside Bldg, 8, Central next to Oleum Tanks	S-10	1	X		AATTOO AAAA AAAA AAAA AAAA AAAA AAAA AA			X			X ~~ ~~	X		ZX-1, ZX-2, ZX-3 ZX-4	4					X			+ > > > > > > > > > > > > > > > > >		5
Caustic Unloading Sump Due North of Bldg 6	5-7	1		33. (833-84379-79)					A. 17 To. 29				T CAR CHANGE	HA-10	4						2.244 2.27.		, we see the section of the		2

TABLE 2 CLOSURE SAMPLING SCHEDULE Sumps, Drains and Clarifiers

1						Phase I	I, III and	IV Asse	ssment /	Analytes	and the state of t		***************************************				**************************************		Closure	Progran	n Analytes				-
LOCATION	Phase II, III and IV Assessment Sampling Points	Number of Soil Samples Analyzed Phase II -IV Assessments	TPH-FC Method 8015FC	BTEX Method 8020	VOCs Method 8010	Form. NASCI 487	PCBs Method 8080	pH Method 9045	Metals Method 6/7000	Total Cr. Method 7190	Phosphate Method 300 1	Chloride Method 300 1	Phenol Sample Screen	Closure Sampling Points	Number of Soil Samples Analyzed for the Closure Program	TPH-FC Method 8015FC	Method	VOCs Method 8260	Method		Phosphate Method 365 2	Chloride Method 300 1	alliciani ancienti della constitue della constitua della constitue della constitue della constitue della constitua della constitue della constitue della constitue della constitua della constitue della constitue della constitue della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della constitua della const	MBAS Method 425.1	Assessment and Closure Samples Analyzed (1) (total)
CLARIFIERS												-								-			-11111111111111111111111111111111111111	V. water Al 200 - V 9	
Clanfier between Bidgs 2 and 14	B-1		x		X	X	X			X	X	X		Q-E and Q-W	2	***	3 3 5 6 A A A A A A A A A A A A A A A A A A	X	#10.00 do. 00.000					20;	3
Main Clarifier preceeding sewer discharge, south gate	B-9	***	X			AAAA JOO AMAAAA		X		Water and American		A PRO PROPERTY OF THE CONTRACTOR		R1 and R2	2	X		X		X	X	X	333433334433347000000000000000000000000	X	3 3
Clarifier near storm water retention lanks	B-14		X		X		***************************************	X		until program of	17.4		*A.S. CONTROL OF A AND ADDRESS OF A AND ADDRESS OF A ADDR	S and Sw	Z	X		X		X	X	X	, a	X	C.
Clarifier southeast corner of Bidg 15	B-13	1	X			X	W. 43. 3000000000000000000000000000000000			T 1.00 1.00 date			**************************************	т	2	X		X							3
Clarifier east of Bldg. 8	NONE				*******		40 00 00 A	YY IYY I AMERICAN W	***************************************			Are	. 8. 3. 3000000 A 20000000000000000000000000000	U-1, U-2, U-3	3	X				X		X	X		3
DRAINS	, in the second							management access, see passess				A4 1044/	A AMERICAN OF MAN AND MARKS A.					*************	Annual Control of the			A hear ratio, sensit to harm had about	, par v urg. no vocanou var announcement	***************************************	
* Inch drain between	8-2	1				*** ***********		×		×	X	X		V-N, V-NM, V-SM V-S, and VD.3	5	Ten non i can ant anyment		X	X			X	X	V V V	6
Drain east of Area V, AGTs and the Formaldehyde tanks	8-25	**************************************	X		X	X	X	X					**************************************	NONE							•				1
Sumpleast of Bidg 4 and office cooling tower	B-11					100000000000000000000000000000000000000			**************************************	Tributation X				X-1.3	4				**************************************			- 1.4	X		2
Storm drain near south gate	NONE	***************************************					www							Y.3	1			×		X			-	**************************************	A.
Storm drains outside of Bldg 6	NONE		*			***************************************		*** ***		11,0000 704, 000000000 00000000		n memman waste visabil pa		Z.3,A1,B1,and C1	4	X				X		. X		X	4
Storm drains southwest of Bidg 1	NONE		CONTROL AND AND AND AND AND AND AND AND AND AND	***						4045 #				Di-1 and Ei-1	2					×		X			2
Storm drains north of Bldg 7	NONE							Add a year or	***				v ar actyr sy namoni aminimini ann.	F1,G1,H1 and GH.3	4					x	X			Х	4
Bldg 5 floor drain	NONE.						**************	V // **********************************		A. A. 1. 1. 1				11-A, 11-B, 11-C (1-D	4				2 2001 A 7 7 700 A 94 A 94	***************************************		X		X	4
Bldg. 8 trench drain	NONE	9000 1000						A. A. A. A. A. A. A. A. A. A. A. A. A. A					summer A de-est	J1-N, J1-N, J1-S	3	X		·· c		X		X	X		3
Storm drain east of Bidg 14	NONE		AP A WA WAY AND								-:			K1	1					X		X			1
CLOSURE EXCAVATION STOCKPLIES								44444444444	* ************************************		`								**************************************	440000000000000000000000000000000000000			, u min u publication		
antier Between Bidg 2 and (4 (Samples QE and QW)	NONE				*- "	·		A v. voner consum		A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			Anneadan newscanness	K-1,K-2,K-3,K-4 (3) (composite)	4 -				w Assessment Aller	\$ av. v. v. v. v. v. v. v. v. v. v. v. v. v					1
Main Clarifier preceeding	NONE								~~~~					R-SP 1, 2, 3, 4 (3)	1	×		<u> </u>		X	X		1	X	1

TABLE 2 CLOSURE SAMPLING SCHEDULE Sumps, Drains and Clariflers

						Phase I	i, ili and	IV Asse	ssment A	nalytes									Closure	Program	n Analytes				
LOCATION	Phase II, III and IV	Number of Soil Samples	<u> </u>								CARACE	a de la company	***************************************	Closure	Number of Soil Samples										Assessment and Closure
	Assessment Sampling Points	Analyzed Phase II -IV	TPH-FC Method	BTEX Method	VOCs Method	Form.	PCBs Mathod	pH	Metals Method	Total Cr. Method	Phosphate Method	Chloride Method	Phenol Sample	Sampling Points	Analyzed for the Closure	TPH-FC Method		VOCs Method	ф~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Phosphate Method	Chloride Method	Ammonia Method	M8AS Method	Samples Analyzed (1)
	7 577160	Assessments	I	8020	8010	487	8060	9045	6/7000	7190	300.1	300.1	Screen		Program	8015FC	8020	B260	8315	9045	365 2	300.1	350.2	425.1	(total)
sewer discharge, south gate (Samples R-1 and R-2)				A A						****				(composite)						A 20 - 1 VIOLENCE AND AND AND AND AND AND AND AND AND AND					
Sump inside Bldg, 8. Central next to Oleum Tanks (Closure Sample ZX)	NONE			A A A A A A A A A A A A A A A A A A A	· · · · · · · · · · · · · · · · · · ·					A SECONDARIO DE LA CONTRACTOR DE LA CONT	^ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			ZX-SP-1	1			A A A A A A A A A A A A A A A A A A A		X					1
Sump within Area III, Oleum AGT Containment area (Closure Sample G)	NONE	Parasis parasis and a second decimal d			M. A. W. W. W. W. W. W. W. W. W. W. W. W. W.	14 74	MANINAMANINAMANAMANAMANAMANAMANAMANAMANA							G-SP-1	1				T THE TOTAL CONTROL OF THE TOT	X					1
500000000000000000000000000000000000000	PHASE II,III AND IV TOTALS	61	54	1	1 6	7	4	15	1 1	4	6	1 4	2	CLOSURE TOTALS	62	23		17	T 5	44	10	33	18	22	123

NOTES

Refer to Plates 1 and 2 for sample locations

ALL Methods shown are U.S. EPA Methods unless otherwise listed

TPH-FC = Total Petroleum Hydrocarbons, Fuel Cheraterization 8TEX = Benzene, Toluene, Ethylbenzene and Xylenes

VOCs = Halogenated Volatile Organic Compounds Form = Formaldehyde

PCBs = Polychlorinated Biphenyls

Metals = 22 CCR Metals Total Cr = Total Chromium Phenol = Phenol phthalein

MBAS = Methylene Blue Active Substances

- (1) Includes Phase II, III and IV assessment and the Closure samples collected below the sumps, drains and clarifiers
- (2) Sample additionally analyzed for PCBs by U.S EPA Method 8080
- (3) Stockpile samples from remedial excavation activities were additionally analyzed for 22 CCR metals and Total Recoverable Petroleum Highrocarbons (TRPH), by U.S. EPA Methods 6000/7000 series and 415.1

TABLE 3

CLOSURE SAMPLING SCHEDULE

Underground- and Above-Ground Tanks and Areas of Concern

						Phase	l, ill and	IV Asse	essment A	nalytes	waqoowaqooy	MANUFACTURE CONTROL CO						······································	Closure	Program	n Analytes			••••	And the second s
LOCATION	Phase II, III and IV Assessment Sampling Points	Number of Soil Samples Analyzed Phase II -IV	TPH-FC Method	BTEX Method	VOCs Method	Form.	PCBs Method	pH Method	Metals Method	Total Cr. Method	Phosphate Method	Chloride Method	phthalein Sample	Closure Sampling Points	Number of Soil Samples Analyzed for the Closure	TPH-FC Method	8TEX Method	VOCs	Form.	Hq	Phosphate Method	Ghloride Method	Ammonia Melhod	MBAS Method	Assessment and Closure Samples Analyzed (1)
	PUINES	Assessments	8	8020	8010	487	0808	9045	6/7000	7190	300.1	30D 1	Screen		Program	BD15FC		8260	8315	9045	365 2	300 1	350 2	425 1	(total)
Undergrouпd Tanks			v =	20. 302200000000000000000000000000000000						A AAAA MARAA AAAAA AAAAA AAAAA AAAAA AAAAA AAAAA AAAA		-	err er gereren, v. v.		**************************************		-8-8	****	A. * **********************************			h			
Former Diesel Tank next to Firestone Blvd. (10,000 gai.)	B-6	1	X		X				W4 (W4)2					NONE					*************			-			1
Former Alcohol Storage Fank south of Bidg 15. 12,000 gal)	8-12	1	X											NONE					**************************************	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3					### Table
Former 100-gat Fuel Storage Tank below the 150,000 gallon water tank	S-5	7			1 / 2000 4000 2000			_X	× 33					H A-1	S	X	Х		x	AND CANAL	W00000000 O 3000000000000				2
Former #2 Fuel Oil Tank below the SW corner of Bldg	B-16, B-29, B-43	20	X	X	V				# PAN AND CONTROL CONT	* 99. %		A /am	- 44	1A, 1B, North South, East, West	6	X	X			A. AND. 300. JOHNSON (A. A.)					26
8 (4,200 gall) Former Fuel (gasotine) Tanks adjacent to the Old Joratory and Garage	B-5 ,B-26, B-27, B-28 B-44, B-45, B-46, B-47, B-48, B-49, B50	103	X	WW V MMM N C.A.	X	200. 29 000	74 .3000000000000000000000000000000000000				The second secon			NONE (Post-Closure Assessment)		AN ANNA DESCRIPTION OF THE STREET				AAA 990 30 1 30 1 A AAA					103
(10,000 and 550 gal) Former Diesel Tank, Southeastern certains of the Site	H-44-1,H-46-1 B-52	5	x		- A			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						NONE			70 AMARIA								5
(10,000 gal.) Former Brine Tank between RR tracks and west of	E-8	1						X			Veril, a An A Nes. 30 A Section 5.	** ***********************************		B-T-A and BT-B	2	X				X	Х	X			3.
Caustic Unloading Area Former Acid Tank Containment, west of Bldg 8	8-1 7	1		Total and the second se				X		2 1000			Ani ale Milian .	B-1,B-2,B-3,B-4 S-1,S-2,S-3,S-4 S-5	g					X	y 2" A	AM A C. AM			10
ABOVE-GROUND TANKS		***************************************												2-3						***					
AREA I - "Chloramide System" Tanks east of Building 1 (Tanks 1-5, Plate 2)	B-2	1						X	-	X	X	X	* // / / / / / / / / / / / / / / / / /	Al-A and Al-B	2							X			3
AREA It - "Raw Material Storage" Tanks west of Bldg 8 (Tanks 9 -16, Plate 2)	S-14	1		200 000 000 000 000 000 000 000 000 000			A 40000	X		X				All-A and All-B	2		W # A ** \$5.00		- INDEED OF ANTI-VALUE	X	4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A		·x		3
AREA III - Oleum Tanks west of Bidg -8, (Tanks 7 and 8, Plate 2)	Б-17	1				**************************************	A 1000.0000	X					A SIL SERVE VARIABLE F. ARRIVA	Aili-A and Aili-B	2					X	A-A-000000000 FO A TO PRODUCTION 1000				3
REA IV - "Sulfanation Area", inside Bldg -8, (Tenks 17- 28, Plate 2)	S-9 and S-10	2	x			4. · · · · · · · · · · · · · · · · · · ·		X			X	X	AR DEROGRAD D. NOTE THE STATE OF THE STATE O	AIV-A, AIV-B, AIV-C, AIV-D AIV-E, AIV-F	6	X				X		X		7	deconnections of the control of the

TABLE 3

CLOSURE SAMPLING SCHEDULE

Underground- and Above-Ground Tanks and Areas of Concern

					oboobbecobbecob	Phase II	l, III and	IV Asse	essment /	Analytes	WHATCH AND THE STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET		eesseesse noomnoomnoomnoomhid			разальна заплиничнични	***************************************		Closure) Progra	m Analytes	***************************************			
LOCATION	Phase II, III and IV Assessment Sampling Points	Number of Soil Samples Analyzed Phase II -IV Assessments	TPH-FC Method 8015FC	BTEX Method 6020	VOCs Method		PCBs Method 8080	pH Method	Metals Method 6/7000	Total Cr. Method 7190	Phosphate Method 300.1	Chloride Method 300 1	phthalein Sample Screen	Closure Sampling Points	Number of Soil Samples Analyzed for the Closure Program	TPH-FC Method 8015FC	Method	<u> </u>		pH Method 9045	Phosphate Method 365.2	Chloride Method 300 1	Ammonia Method 350 2	MBAS Method 425,1	Assessment and Closure Samples Analyzed (1) (total)
AREA V - "Detergent Area", Above ground tank farm east of Bldg 8 (Tanks 29 -46, Plate 2)	S-13	1			0010	401		X		, A.	X	X	JOEEN	AV-A, AV-B, AV-C AV-D, AV-E, AV-F	6	X	CUZV	d.250	X	X	**************************************	X	X	X	7
AREA VI - "Silo Stroage" east of Bldg 5 (Tanks 51- 56, Plate 2)	None	enement and a second a second and a second and a second and a second and a second a	P F MORROW, ADMINISTRATION AND ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINISTRATION ADMINIST		-	***************************************								AVI-A and AVI-B	2					X		X	A 0 0 1902 T		2
AREA VII - "Product Stroage" inside 6ldg 5 "Spray Dryer", (Tanks 57 - 70, Plate 2)	None	osabosososososososososososososososososos		777										AVII-A, AVII-B AVII-C, AVII-D AVII-E	5		10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Acquired and American						X	5
AREA VIII - "Stormwater Retention Area", SE corner of the Site, (Tanks 47 - 50, Plate 2)	Nane		49, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010, 2010			- Visi seminori	A 3 - A A AMERICAN			No. No. a management				AVIII-N, AVIII-NM AVIII-MS, AVIII-S	4	X	X	X		X	x	X		X	4
Former Fuel Oil and Alkane Oil Tanks west of "Storm- ter Retention Area", (Tanks U223 and 0224)	8⊬10	1	X		- de 1860								A 41 784	HA-7 and HA-8	2	X		14 had 14 marks - 1				Modelland service			3
Former Cooling Tower west of the central water tank and Bidg 4 (18,000 gall)	S-6	g t						X	The state of the s	X			-	NONE			ene ee ee ee ee ee ee ee ee ee ee		W 7 ***********************************			44.2	A - 7 F		1
Former Caustic Tanks west Bldg. 4	S-4	1	A A A S S S S S S S S S S S S S S S S S	3,00,03 NO 10000 FEDERAL .				X			The second water and post of a second	* 1 Manuscriptons, 1000000000000000000000000000000000000		NONE				33334433344	ag ag room ring has seen			4.4.3.3.4.4.4.3.4.4.4.4.4.4.4.4.4.4.4.4			3
Former Chlorine Tariks inside Bldg 3	S-7	1	***************************************					X			X	X		NONE		\		·							1
AREAS OF CONCERN OF NEEDING ADDITIONAL ASSESSMENT			w w					**************************************																As	
Lube Oil Storage Area inside Bldg 6	NONE			V √w			**************************************	A A A A				1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A	77 74.74 M = 1 A =	HA-2	Î	X		3 3 3 4 4 A .	M. A	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	71. 2		A A 2 ****		1
Oil Stained Area South Wall Bidg 6	NONE				and the second			Ver-ner V				v		HA-3 and HA-4	2	X				**************************************	•		Vancous Value Vancous Vancous Value Vancous		2
Oil Stained Area South Wall SE corner Bldg 6 Oil Stained Area inside old	NONE		P (000000000000000000000000000000000000	AL DESCRIPTION OF DESCRIPTION					3. 200000			" AAAA A AMAAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA A AMAA		HA-5 HA-6	1	X						T WEEK HONOROGONY			1
Compressor Room SE imer Bldg 6				. 2 2000000. 30. 3000. 300				W VA.7 A.000000					200. 100. 200.0230					a - vone for r vone	MANAGEMENT AND AND AND AND AND AND AND AND AND AND				A. A. A. MAA.		
Equipment Cleaning Pad north side of Building 14 and	S-1	1	X		<u> </u>		X						rictange	None									***************************************		1

TABLE 3 CLOSURE SAMPLING SCHEDULE Underground- and Above-Ground Tanks and Areas of Concern

						Phase I	I, III and	IV Asse	ssment /	Analytes	333333334	***************************************							Ctosure	Progra	n Anaiytes				
LOCATION	Phase II, III and IV Assessment Sampling Points	Number of Soil Samples Analyzed Phase II -IV Assessments	TPH-FC Method 8015FC	BTEX Method 8020	VOCs Method 8010	Form. NASCI 487	PCBs Method 8080	pH Method 9045	Metals Method 6/7000	Total Cr. Method 7190	Phosphate Method 300 1	Chloride Method 300 1	phthalein Sample Screen	Closure Sampling Points	Number of Soil Samples Analyzed for the Closure Program	TPH-FC Method 8015FC	Method	1	Form. Method 8315	pH Method 9045	Phosphate Melhod 365.2	Chloride Method 300 1	Ammonia Method 350.2	MBAS Method 425.1	Assessme and Closu Samples Analyzed ((total)
ne adjacent Clanifier			100 10000000000000000000000000000000000						1																
Drum Fluid Dispensing Area NW Corner of Bldg 2, Lab	§ -2	1	X	**************************************	-						Version of the second			HA-1	1	X	X		- V1 *				2 M / 2 COMMON TOWN		2
Maintenance Area inside 3idg 2 Lab and garage	S-3, B-30, B-31, B-32	10			X				X				######################################	None						************		**************************************			10
Dil Compressor outside Bldg 7	5-8	1	<u> </u>				,			The state of the s	***************************************		3.3.5.5.6.4	None			** ************************************		- 4ee Auk						T.
CLOSURE and EXCAVATION STOCKPILES			3.8.8.6.3.1.8.1.8.2.1.3.100.3000.47					àA	-				************************************	Note: stockpile samples are composites		1.000.00.000			maga aga as a gama sa		<u> </u>		AMERICANO DE LOS APOSTOS PROPRETADADOS PROPRETADADOS P	. 4	
AREA V Soil Stockpiles rom closure of Sumps vithin the AGT containment Closure samples AV-A	NONE												***************************************	N-1,N-2 (2),NSP E-1,E-2,E-3 (2),ESP W-1,W-2,W-3,MSP S-1,S-1,S-3,S-4 (2)	2 2 2 1	X X X			X X X	X X X		X X X	X	X	2 2 2 1
hrough AV-F) Jr.ne Tank Soil Stockpils	NONE	00000000000000000000000000000000000000	= AAAAAA AAAA					TO FREE BOY STOP OF THE						SSP 8T-1,8T-2,8T-3	1	X	X		X	X		X	X	X 	1
Closure Samples BT-A and BT-B)					-64-AS-#80-# P#### - V					encircular de regional de la constanta de la c				BT-4											
Acid Containment Area Closure and Remedial Excavation Samples B-1 hrough B-5 and S-1 through 3-5)	NONE		As all A	3000 A 10	V								Man A was about a second	ST-1 and ST-2	2			The state of the s		X					2
	PHASE II, III and IV TOTALS	156	146	20	115	<u> </u>	1 1	12	10	3	5	5	1	CLOSURE TOTALS	69	44	15	4	13	42	6	29	15	22	225

NOTES

Refer to Plates 1 and 2 for sample locations

ALL Methods shown are U.S. EPA Methods unless otherwise listed

TPH-FC = Total Petroleum Hydrocarbons, Fuel Charaterization

BTEX = Benzene, Toluene, Ethylbenzene and Xylenes VOCs = Haogenated Volatile Organic Compounds

Form = Formaldehyde

PCBs = Polychlorinated Biphenyla

Metals = 22 CCR Metals, Title 22 Catifornia Code of Regulations Chapter 2 Article 11

Total Cr = Total Chromium

pithalein = Phenot phthatein

MBAS = Methylene Blue Active Substances

(1) Includes Phase II, III and IV assessment and Closure samples collected below aboveground and underground storage tanks and areas of concern.

(2) Stockpile samples from remedial excavation activities were additionally analyzed for 22 CCR metals and Total Recoverable Petroleum Hoyrocarbons (TRPH), by U.S. EPA Methods 6000/7000 series and 418.1

TABLE 4 POST-CLOSURE ASSESSMENT SAMPING and ANALYSIS SCHEDULE DIAL CORPORATION, SOUTH GATE FACILITY

						Post-Closure Pro	gram Analy	tes				
LOCATION	Post Closure Esploratory Borings	Number of Soil Samples Analyzed for the Post- Closure Program	TPH-FC Method 8015FC	BTEX Method 8020	VOCs Method 8260	Formaldehyde Method 8315	pH Method 9045	Phosphate Method 365.2	Chloride Method 300 1	Ammonia Method 350.2	MBAS Method 425.1	Total Post-Closure Assessment Samples Analyzed (1)
UNDERGROUND TANKS										,		
Closure borings for Old Garage/Lab SVE . Former 10,000 and 550 gallon storage tanks (see Plate 3)	CB-1 CB-2 CB-3	9 9 9	X X X		X X X							9 9 9
ABOVEGROUND TANKS									008005000000000000000000000000000000000			
AREA V - "Detergent Area", Aboveground Tarik Farm east of Bldg. 8 (Tanks 29 -46, Plate 3).	EB-14 EB-15 EB-16 EB-17 EB-18	4 4 4 4				X X X X				X X X X	X X X X	4 4 4 4
Former Fuel Oil and Alkylate Storage Tanks west of the Stormwater Retention Area, tanks 0223 and 0224 See Plate 3	EB-12 EB-13	7 8	X X									7 8
CLARIFIERS		***************************************		***************************************	200000000000000000000000000000000000000	***************************************			000000000000000000000000000000000000000	***************************************		
Clarifier between Building 2 and 14 Closure Samples Q-E and Q-W conatined detectable concentrations of chloroform and methylene chloride (see Plate3)	EB-8 EB-9 EB-10 EB-11	a a a			X X X							9 9 9
Main Clarifier at the South Gate Preceeding the Sewer Discharge	EB-1	9	X		х							9

PRINT DATE 4/30/97

TABLE 4 POST-CLOSURE ASSESSMENT SAMPING and ANALYSIS SCHEDULE DIAL CORPORATION, SOUTH GATE FACILITY

				(1911)	010040000000000000000000000000000000000	Post-Closure Pro	gram Analy	tes	and the second s			
LOCATION	Post Closure Esploratory Borings	Number of Soil Samples Analyzed for the Post- Closure Program	TPH-FC Method 8015FC	BTEX Method 8020	VOCs Method 8260	Formaldehyde Method 8315	pH Method 9045	Phosphate Method 365.2	Chloride Method 300.1	Ammonia Method 350,2	MBAS Method 425.1	Total Post-Closure Assessment Samples Analyzed (1)
AREAS of CONCERN or NEEDING ADDITIONAL ASSESSMENT Tube Oil Storage Area inside Building it. Elevated TPH conceturations eported in the soil sample from HA-2. Hee Plate 3 for sample locations	EB-4 EB-5 EB-6 EB-7	4 2 2 2	X X X X									4 2 2 2
POST-CLOSURE INVESTIGATIVE DERIVED WASTE Soil Stockpiled derived from the estallation of monitoring wells MW-11, MW-12 and MW-13)	MW-11 90W-12 98W-13	1 1 1			X X X							1 1 1
<u></u>		TOTAL NUMBER of Analyses	61		75	20			0	20	20	428

NOTES

Refer to PLATE 3 for sample locations

ALL Methods shown are U.S. EPA Methods unless otherwise listed

TPH-FC = Yotal Petroleum Hydrocarbons, Fuel Charaterization

BTEX = Bertzena, Toluena, Ethylbertzena and Xylaries.

VOCs = Halogenated Volatile Organic Compounds

MBAS = Methylene Blue Active Substances

TABLE 5
Screening Level Criteria and PRGs for VOCs and Petroleum Hydrocarbons

VOLATILE ORGANIC COMPOUNDS AND OTHER COCS

Constituent of Concern		Chloroform	Methylene Chioride	1,2,4 TMB ***	1,3,5 TMB ***	Formaldehyde *	TCE	1,1-DCA	Dichloro- difluoromethane *	Napthalene****	Ammonia **	Chloride **	MBAS**
PRG (mg/kg)		1.1	25	none	none	100,000	17	3,900	350	none	none	none	none
MCL (mg/L)		0.1	0,005	1,75	1.75	5.5	0.005	0.005	0.39	0.02	45	250	0.5
Depth (feet)	Distance above Groundwater (feet)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Lavel Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Lavel Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)
5 10 15 20 25 30 35 40	40 35 30 75 20 15 10 5 Groundwater	1 45 1 26 1 08 0 89 0 70 0 55 0 40 0 40 Groundwater	0.07 0.05 0.05 0.04 0.03 0.03 0.02 0.02 Groundwater	25.38 22.09 18.81 15.53 12.25 9.63 7.00 7.00 Groundwater	25 38 22 09 18.81 15 53 12 25 9 63 7 00 7.00 Groundwater	79 75 58 44 59 13 49 81 38 50 30 75 22 00 27 00 Groundwater	0 07 0 05 0 05 0 04 0 04 0 03 0 02 0 02 Groundwater	0.07 0.06 0.05 0.04 0.03 0.02 0.02 0.02 Groundwater	5 65 4 52 4 19 3 46 2 73 2 15 1 56 1 56 Groundwater	0.29 0.25 0.22 0.18 0.14 0.11 0.05 0.08 Groundwater	653 568 484 399 315 248 180 180 Groundwater	3625 3156 2688 2219 1750 1375 1000 1000 Groundwater	7.3 5.3 5.4 4.4 3.5 2.6 2.0 2.0 Groundwater

PETROLEUM MYDROCARBONS AND BTEX

Constituent of		TPH	TPH	TPH	Benzene	Toluene	Ethyl-	Xylenes
Concern		C4 to C12	C13 to C22	C23+	3		Benzene	
PRG (mg/kg)		none	none	none	3.2	2,800	990	690
MCL (mg/L)	material construction of the second second	none	none	none	0.001	0.1	0.68	1.75
Depth (feet)	Distance above Groundwater (feet)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)	Screening Level Criteria (mg/kg)
7 10 1000000000000000000000000000000000	, , , , , , , , , , , , , , , , , , , ,			411111111111111111111111111111111111111			то то то то то то то то то то то то то т	
5	40	500	1000	10,000	0 CX81	4 200	16 567	45 417
10	35	500	10000	16,000	0 067	3 475	13 639	37 344
15	30	500	1000	10,000	0.054	2 750	10 700	29 271
20	25	500	1000	10,000	0 041	2 025	7 779	21 198
25	20	500	1000	10,000	0.028	1 300	4.850	13 125
30	15	100	100	1,000	0.001	0 10	0 68	1 75
35	10	100	100	1,000	0.001	010	0.68	175
40	5	100	1010	1,000	0 001	0,10	0.68	1 75
45	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundweter

^{*} The value for Formaldehyde and Dichlorodifluoromethane is the PRG for tap water

[&]quot;The values for MBAS, ammonia and chloride are secondary MCLs, ammonia is shown as NO3

^{***} The MCL for 1,2,4- and 1,3,5-TMB was assumed to be the same as xylenes based on structural similarity

^{***} An MCI, or PRG has not been published for Napthalene To estimate sorrening level criteria the Suggest No-Advevse Response Level or SNARL was used. A SNARL is a health advisory published by EPA (March, 1986, September, 1987)

PRG = EPA Region iX, Preliminary Remediation Goal, (September, 1995)

MCL = State of California, Maximum Contaminant Level for a drinking water resource

		Sample	Petro	leum Hydroca	rbons		Aromatic C	ompounds		Volatile Orga	anic Compound	ds (1)								
LOCATION	Closure	Depth	ТРН	TPH	трн			Ethyl	1	Chloro	Methylene	1,2,4	1,3,5					***************************************		Other
	Sampling	(feet below	C4-C12	C13-C22	C23+	Benzene	Toluene	benzene	Xylenes	form	Chloride	TMB	TMB	Form.	рН	Phosphate	Chloride	Ammonia	MBAS	Analyte
	Points	ground	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method
		surface)	8015FC	6015FC	8015FC	8020	8020	8020	8020	8260	8260	8260	8260	6315	9045	355,2	300.1	350 2m	425 1m	Various
		,	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	******	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Practical Quantitation Limits			0.5	10	10	0 005	0 005	0 005	0 01	0 005	0.01	0 005	0.005	2		0.5	10	10	1 1	Various
PRG			none	none	none	3 2	2800	690	990	11	25	nane	none	100,000	none	голе	none	nane	none	
			MINISTRATOR OF THE PROPERTY OF	7,0110	######################################			000	элемин этом					100,000	1 - 2 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3	- WWW.	Here			ALL REMAINS OF THE PARTY OF THE
AREA II - "Raw Material	All-A	3			***************************************			- ***							8,5			ND		3 4 4 3 3 3 4000
Storage" Tanks west of Bidg	All-B	3													7.4			ND		
8 (Tanks 9 -16, Plate 1)					* * ***********************************		******************************			***					**************************************	- ALLEN THE CO.				****
AREA III - Oleum Tanks	AIII-A	3]			**************************************	1		1			8.1					
west of Bidg. 8, (Tanks 7	AIII-B	3			***************************************		PROPERTY CANADA AND A STATE OF THE STATE OF		**************************************				***************************************	— 16 1911 si k marandoninin	8.3				· [
and 8, Plate 1)		ulandari da da da da da da da da da da da da da																	Y 7 797) /w 1884-ww	
AREA IV - "Sulfonation Area",	AIV-A	4	QN	NO	ND		I					 	<u> </u>	-	7.2	 	77		-	
inside Bldg 8, (Tanks 17-	AIV-B	4	ND -	ND	ND		I			1		1	 		8.6	 	110		-	
28, Plate 1)	AIV-C	4	ND	610	ND								 		7.2		78		· ·	
many - company of	AIV-D	4	ND ND	ND	ND ND								4	l	7.7		2000			we's women consumers
ı	AIV-E	4	ND ND	67	ND		***************************************								7.3	 	340			
	AIV-E AIV-F	4	ND	ND ND	ND D		Y brancourse	***************************************			***************************************		*/t.ca	l	7.4		240	4-		
	WIA-L	4		NU	NU	 		·		ļ		 			(,9		£40		·	
AREA V - "Detergent Area",	817.4	5	סא	630			 								7.6		33	470	1600	>
Above ground lank farm east	AV-A	4	&		56]			 		-		4.4 50.1	7.6 8.6	<u> </u>	120	#10	410	
of Bidg 8 (Tanks 29 -46,	AV-B	•	ND .	120	27 ND	!			-			1		1	3334422					
	AV-C	5	ND	_ ND	-						<u> </u>	-	_	ND	7,9	ļ	2000		9.9	
Plate 1) Samples collected	AV-D	5	ND	ND	ND						<u> </u>			ND	9.6		260	456	6.5	
below sumps and drains in	AV-E	5	ND	410	ND	<u> </u>	#* ***********************************					 		10.1	8		50	120	1.3	
containment area	AV-F	5	ND	ND	ND									2.9	9.3		310		23	
AREA VI - "Silo Stronge",	AVI-A	3		 								<u> </u>			7.9		66			
east of Bidg 5. (Tanks 51- 56, Plate 1)	AVI-B	3	W Vocanosconov *** V V V ***							No. 4 melanometrica					9.3	**************************************	280	V		
AREA VII - "Product Stroage"	AVII-A	3	100		A						-	-	-						37	
inside Bldg 5 "Spray Dryer",	AVII-B	3			· v	.				 								**************************************	40	
(Tanks 57 - 70, Plate 1)	1	ł					_	·· ·· · · · · · · · · · · · · · · · ·					-						250	
(Tanks 57 = 70, Flate 1)	AVII-C	3						···	***************************************	·		- -		ļ		· ***		··· • ••••••		
	AVII-D AVII-E	3 3	**************************************	4	***************************************		***************************************		**************************************						www.minima.achinin.achin.achin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin.achinin		Wilder and makes and the makest enterthy tronscolers in	900 T S S S S S S S S S S S S S S S S S S	85 9.2	
AREA VIII - "Stormwater	AVIII-N	4	ND	400	ND	ND	ND	ND	NO NO	ND	NO	NO	NO	4	9,3	1.1	150		290	
Retention Area", SE corner	AVIII-NM	4	ND	460	ND	ND	ND	ND	ND	ND	ND	ND	ND		8.7	2.8	230		160	
of the Site, (Tanks 47 - 50,	AVIII-MS	4	ND	480	ND	ND	ND	ND	ND ND	ND	ND _	ND	NO	<u> </u>	9.2	1.8	130		170	
Plate 1)	AVIII-S	4	ND	930	ND	ND	ND	ND	ND	ND	ND	ND	ND		9,7	6.9	300		270	
Former Fuel Oil and Alkane	HA-7	6	ND	3000	ND		energenergen mar vo.A		***************************************					***************************************	***************************************			******	***************************************	
Oil Tanks west of "Storm-	8-AH	-6	NO	17	ND		# warment warment wat		- k	FF : PRI substant about the second of				*********						***************************************
water Refention Area", (Tanks 0223 and 0224)	000000000000000000000000000000000000000								**************************************	, , , , , , , , , , , , , , , , , , , ,			**************************************	wv******					- W	
Former Cooling Tower west	None	adderderskielder der der der der der der der der der	s		* ** **															30 MW /
of the central water tank and			I							************						And the second s				
Bidg 4 (18,000 gall)			***************************************													a de acrono destaconocente, y que agas.				
Former Caustic Tanks west Bidg 4	None	NO.					which their own that we see to						1					····		_
HIGG 4		8	8	1	1	5	1	1				1		,		1		1	, ,	1

-		Sample	Petrol	eum Hydroca	rbons		Aromatic C	ompounds	CONTRACTOR CONTRACTOR OF THE STATE OF THE ST	Volatile Orga	inic Compound	is (1)			**************************************	www.commoonMicooccccooccanaaaaaaaaaaaaaaaaaaaaaaaaaa			***************************************	D-100001
LOCATION	Closure	Depth	ТРН	ТРН	TPH			Ethyl	1	Chloro	Methylene	1,2,4	1,3,5	T	***************************************	The state of the s	***************************************	1		Other
	Sampling	(feet below	C4-C12	C13-C22	C23+	Benzene	Toluene	benzene	Xylenes	form	Chloride	TM6	TMB	Form.	ρН	Phosphate	Chloride	Ammonia	MBAS	Analyte
	Points	ground	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method
		surface)	8015FC	8015FC	8015FC	8020	8020	8020	8020	8250	8260	8260	8260	8315	9045	365.2	300 1	350 2m	425 1m	Various
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Practical Quantitation Limits			0.5	10	10	0 005	0.005	0 005	0.01	0.005	0.01	0.005	0 005	2	*****	0.5	10	10	1	Various
PRG	***************************************		none	none	none	3.2	2800	690	990	11	25	none	none	100,000	none	none	none	enon	none	
							######################################				OWNERS OF THE PROPERTY OF THE	1								
Former Chlorine Tanks	None		4					**	***************************************											-
nside Bldg. 3	1,011		***							-			gpv 12	······································	**************************************			<u> </u>		****
						 														
Expression number of the Company of				***************************************											***************************************	<u> </u>				nonnahkhhilililililililili
AREAS of CONCERN or					ALLE OF THE PARTY			1111	l	**************************************			*		***************************************	HI	~ 1444			
NEEDING ADDITIONAL					C-C-COCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC						***************************************		·		, , , , , , , , , , , , , , , , , , ,		***************************************		****************	**************************************
<u>ASSESSMENT</u>								^		l				***************************************		-		Y W		
						<u> </u>							***		12211		· · · · · · · · · · · · · · · · · · ·	-14-		
Lube Oil Storage Area inside	HA-2	3	0.5	3200	5500			- Annual Company &	1	***************************************										9300
Bldg 6				······································				······································			#1011017.19900000000000000000000000000000				7 11 VVVV					(TRPH)
Od Chairead Sana County Miles						· · · · · · · · · · · · · · · · · · ·		^	<u> </u>	<u> </u>		<u> </u>			·····					
O# Stained Area South Wall Bidg 6	E-AH A-4	4	ND NO	ND	ND				<u> </u>			<u> </u>					***************************************			
ലാഗ്യ പ	1 144	4	NU	- ND	ND					<u> </u>		<u> </u>					.22			
Oil Stained Area South Wall	HA-5	3.5	ND	ND	210	ļ			X.44		ļ	ļ								690
SE corner Bidg 6		, -				-							www.commonsering.							(TRPH)
_					**** ^ //******************************	·	\www.nnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn					 					V .V			
Oil Stained Area inside old	HA-6	3.5		~	# #P40.0 0.0 0.0000000000000000000000000000		AA07777 * //////////				1	·			* * ******		y			31
Compressor Room SE															40		1,,,,,			(TRPH)
Corner Bldg 6					* * 1															
Farmer No. 1															A LAN. Grant representation and an arrangement					***************************************
Equipment Cleaning Pad north side of Building 14 and	None							v .====									······			
the adjacent Clarifier				·			,					 		 		ļ				
and any and and any																· · · · · · · · · · · · · · · · · · ·				
Drum Fluid Dispensing Area	HA-9	5	ND -	ND	ND	ND -	ND	ND	ND			 -								
NE Corner of Bldg 2, Lab		_			* A.A.A.M			-1 h				<u> </u>		F AM V 104	· · · · · · · · · · · · · · · · · · ·				2" " \$ 2400 to total and t	
					·				I	l					P. wvv.***	_	www.	***************************************		*****
Maintenance Area inside	None		· · · · · · · · · · · · · · · · · · ·	(PL 1.5121					* *************************************			***************************************			V - T transference records delaubbarde la la la		Account of a second section			V1
Bidg 2 Lab and garage																				
010				**************************************			*************************					.		.,,,,				1,,,,,,,,		
Oil Compressor outside Bldg 7	None											ļ			w' Mr. m. 4 + + + + + + + + + + + + + + + + + +					<u> </u>
DILLY (common or an exp of the	737 mga gamin sanaman 1, 1, 1, 1, 1, 1, 1, 1	~======================================			···										ļ		***************************************
Area indentified outside Bldg	Bldg 4A	3	0.55		ND		·····		 				***************************************			<u> </u>				
4 during demolition with a	Drug art	a			1 E M*				 	.			AAAAAA				manuscript of the Eugeneens			
noticable "Diesel Odor"			. =			* ************************************					.000 Ag .de Made			~~~~~		 ,,,,	**************************************			
in the surface soils							Į — — — — — — — — — — — — — — — — — — —		· /////// */***									***************************************		
						**************************************											b.v.	***************************************		
							Ē	***												
CLOSURE and EXCAVATION					CONTRACTOR / . TT TOTAL PROPERTY		Ī								Water American					
STOCKPILES (3)			**************************************		W					<u> </u>									 	/ Name of the last
AREA V Soil Stockpiles	1 11 12 12	njer.	[_4							ļ.,							(TRPH)
rom closure of Sumps	N-1,2 (3) NSP	2(2) 2(2)	0.86	200	91			·			 	<u> </u>	 				320	87	7.	320
within the AGT containment	E-1,2,3 (3)	2(2) 2(2)	u		31		 .					<u> </u>		6.4	8.4	VVVV	320	<u>a, a, a, a, a, a, a, a, a, a, a, a, a, a</u>	25	45
Closure samples AV-A	ESP	2(2) 2(2)	ND	97	22			<u></u>		<u> </u>	<u> </u>	<u> </u>		3.6	8.5	 	39	NO	7 1	73
hrough AV-F)	W-1,2,3 (3)	2(2)			& 4		I	ł	 		ł	<u> </u>			U s u					310
÷ •	MSP	2(2)	ND	18	23							1		10.2	8.9		600		8.7	

		Sample	Petro	leum Hydroca	rbons	ł	Aromatic C	ompounds		Volatile Orga	nic Compound	s (1)						-		
LOCATION	Closure	Depth	TPH	TPH	TPH			Ethyl		Chloro	Methylene	1,2,4	1,3,5							Other
	Sampling	(feet below	C4-C12	C13-C22	C23+	Benzene	Toluene	benzene	Xylenes	form	Chloride	TMB	TMB	Form.	pН	Phosphate	Chloride	Ammonia	MBAS	Analytes
	Points	ground	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Nethod	Method	Method	Method	Method
		surface)	8015FC	8015FC	8015FC	8020	8020	8020	8020	8260	8260	8260	8260	8315	9045	365.2	300.1	350.2m	425.1m	Various
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(rng/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Practical Quantitation Limits		A THE RESERVE TO SERVE THE PROPERTY OF THE PRO	0.5	10	10	0 005	0.005	0 005	0.01	0 005	0.01	0.005	0.005	2		0.5	10	10	1	Various
PRG			none	none	попе	32	2800	690	990	1.1	25	none	none	100,000	лспе	лопе	none	none	none	
	S-1,2,3,4 (3)	2(2)					WXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX								······································				- the draw till send on a second	190
	SSP	2(2)	ND	ND	ND					a consideration and admin a fine		!]	11	0.6		250	92	3.7	199
,	337	2(2)			NU										9.6		230	***		
Brine Tank Soil Stockpiles	BT-1	2(2)	DM D	39	ND	NO	ND	ND	ND	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				\nffffppp		***************************************				
(Closure Samples BT-A	BT-2	2(2)	ND	110	ND	ND	ND	ND	ND			·	*************************	/					I	
and 8T-B)	BT-3	2(2)	ND	140	220	ND	ND	ND	ND				And the second of the second o		***************************************		****		1	***************************************
	BT-4	2(2)	ND	22	47	ND	ND	ND	ND			· · · · · · · · · · · · · · · · · · ·								***************************************
Stockpile samples from	ST-1	2(2)	^^ 8	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************						Val.				7.6			***************************************		
material generaled as part of	ST-2	2(2)							,		440000000000000000000000000000000000000				7.2					
removal actions in the acid						1		***************************************		4	- Allenan	***************************************				***************************************				
containment area (closure			V.															The state of the s		
samples B-1 through B-5,					100000000000000000000000000000000000000			*****					***************************************		**************************************		***************************************	12000		The same of the sa
S-1 through S-4)			TO A CANADA CA ADMINISTRAÇÃO DE CASADA CONTRACTOR D					M	- h, , o				Par Mine o Announcement Company Company				P			

NOTES

Refer to PLATE 2 for sample locations.

Certified Analytical Laboratory Reports and Chain-of-Custody Documentation are provided in Appendix B.

ALL Methods shown are U.S. EPA Methods unless otherwise listed

ND(<50) = Not Detected at an elevated method detection limit shown in parenthesis. Elevated limits due to matrix interfearences.

None = No Sample Collected for this Waste Management Unit. Refer to prior Phase II thorugh Phase IV investigations

PRG = Preliminary Remediation Goal, U.S.EPA Region IX, September, 1995, for industrial soils

TPH-FC = Total Petroleum Hydrocarbons, Fuel Charatenzation

1,2,4 TMB = 1,2,4 Tnmethylbenzene

1,3,5 TMB = 1,3,5 Trimethylbenzene

Form = Formaldehyde

MBAS = Methylene Blue Active Substances

- (1) Volable Organic Compounds reported in the soil samples collected and analyzed by EPA method 8260. Remaining VOCs from EPA 8260 Analysis were not reported above method detection limits.
- (2) Composite stockpile samples from remedial excavation activities were additionally analyzed for 22 CCR metals and Total Recoverable Petroleum Higgscarbons (TRPH), by U.S EPA Methods 6010/7000 series and 418 1.
- (3) Soil samples were collected approximately 2 feet into the stockpile.
- (4) Sediment sample collected from material accumulated in the Brine Tank chambers. Additional analysis included CCR Title 22 Metals. All metal concentrations were within TTLC CCR Title 22 Criteria.

	Post	Sample	Petro	eum Hydroca	rbons	**************************************	Aromatic Co	moounds	***************************************	Volatile Orga	nic Compound:	s (1)			***************************************		***************************************	***************************************	<u> </u>		~
LOCATION	Closure	Depth	TPH	ТРН	TPH			Ethyl		Chloro	Methylene	Dichloro	1,1-DCA	TCE	PCE	Naptha	1,2,4	1,3,5	1		T
	Exploratory	(feet below	C4-C12	C13-G22	C23+	Benzene	Toluene	benzene	Xylenes	form	Chloride	difluromethane	•	***************************************		lene	ТМВ	TMB	Form.	Ammonia	MBAS
	Soil	ground	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method
	Borings	surface)	8015FC	8015FC	8015FC	8020	9020	8020	8020	9260	8260	8260	8260	8260	9260	8260	8250	8260	8315	350 2m	425 1m
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg
Practical Quantitation Limits			0.5	10	10	0 005	0.005	0 005	0 01	0.01	0.01	0 002	0 005	0 003	0.003	0.02	0.005	0 005	2	10	1
PRG			попе	none	none	32	2800	690	990	11	25	350	3,900	17	25	none	none	none	100,000	none	none
UNDERGROUND TANKS						THE IN I AND ASSOCIATION	A4000000000000000000000000000000000000				10) (pppppppppppppppppppp	месонологоногоного за.тала месоногоного "Данфију		The second consequence	***************************************		we was in the management of the Child Child Child			· ·,	- New Year American
Former Fuel (gasoline)	CB-1	e	E155			**************************************					110		B. E. CHL				1				_ [
Tanks adjacent to the Old	Co-I	5	ND ND	ND ND	ND ND	ND	ND	ND	ND	ND NO	ND	ND ND	ND ND	ND NO	ND NO	ND	NO	NO NO	-		-
Laboratory and Garage		10 15	NO NO	ND	ON D	ND	ND ND	ND ND	ND ND	NO NO	ND ND	ND ND	ND ND	ND	NO	ND	ND NO	ND ND			
(10,000 and 550 gal)		20	ND	ND	ND	ND ND	ND ND	ND ND	OM OM	N()	ND ND	ND ND	ND	ON ON	NO NO	ND ND	NO NO	NO NO			
(included gary)		25	NO	שא	ND	ND	ND ND	ND	ND	N()	NO NO	NO	ND	NO	ND -	ND	NO	ND	1		
Confirmatory Soil Borings		30	NO	NO	NO	ND	םא	ND	ND ND	NI)	מא	NO	ND ND	ND	ND	ND	ND	ND			
,		35	NO	ND	ND	ND	ND	ND	ND	ND ND	ND ND	W	ND	0.0031	0.0042	ND	ND ND	ND		*** - ** - *** ************************	-1
		40	ND	ND	ND	0.0078	ND ND	0.005	ND ND	ND ND	ND	NO NO	ND	ND ND	ND	NO	ND	NO	1		
		45	ДN	ND	ND	0.08	0,033	0.042	0.18	N()	ND	ND	ND	ND ND	NO	ND	0.011	0.022	1		
			A A1 20000000000000000000000000000000000				l	-			·		·······			-				-	* *************************************
	CB-2	5	0.56	ND	ND	ND	GN	ND	ND	NO	ND	ND ND	ND	ND	ND	ND	NO	NO		approximate was excellent of the	
		10	ND	ND	ND	ND	ND	ND	ND	NO	NO	ND	ND	NO	ND	ND	NO	NO			***************************************
		15	0,82	ND	ND	NO	מא	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
		20	6.7	ND	ND	0.068	0.6	0.55	1.2	M()	ND	ND	ND	ND	ND ND	0.83	0.73	ND			
		25	2 .	ND	NO	ND	0.03	ND	0.14	NI)	ND	DND	ND	ND	ND	ND	0.068	ND			
		30	1.5	ND	NO	0.13	0.2	0.02	0.26	ND	ND	ND	ND	ND	ND	ND	0.059	NO	1		
		35	ND	ND	ND	ON	ND	0.021	ND	ND _	ND	NO	ND	ND.	OM	GN	ND	ND			
		40	ND	ND NO	ND -	0.0063	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
		45	0.74	ND	OND	0.021	800.0	ND	מא	ND ND	ND	ND.	ND	ND	NO	ND NO	ND	ND			-
	СВ-3	5	מא	NO	ND	*/F>	ND	ND	ND			ND ND	£264	4100	40 <i>2</i> %	ND	4/5	1 3380			
	, , , , , , , , , , , , , , , , , , ,	10	ND	ND	ND ND	DN DN	ND ON	ND ND	מא	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND		***************************************	·
		15		ND	ND ND	UD	ND ND	ND ND	מא	NI)	ND	ND ND	ND ND	ND	NO	ND ND	ND	ND ND	.		
		20	4200	D CIN	ND	ND(<20)	NO(<20)	28	200	ND(< 50)	ND(<50)	ND(<10)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)	ND(<20)		M00000 M0000 MA M M111-1-1-11-11-1	
		25	210	ND	ND	ND	0,089	0.11	0.38	NO.	ND	NO	ND	ND	ND	0.55	0.48	0.28		933 441.00000000000000000000000000000000000	-
		30	15	ND ND	. אם	1.1	2.9	0.34	2.5	NO	····ND	ND	ND	NO	ND	ND	0.83	ND			1
		3 5	0.58	ND	ND	NO	ND	ND	ND	ND	NO	ND ON	QN	ND	ОИ	ND	ND	ND	1	·····	
		40	1,8	ND	ND	0.0055	ND	GN	0.028	ND	ND	ND	ND	ND	ND	ND	0.011	ND			
		45	2	ND	ND	0.22	0,19	0.044	0.18	CIM	ND	ND	ND	ND	ND	ND	ND	0.0064			· /*
				***************************************		***************************************							***************************************							4	
						***************************************	***************************************					A4	and the second s		111111111111111111111111111111111111111			<u> </u>		***************************************	
AHOVEGROUND TANKS			A 107																		_
AREA V - "Detergent Area",		_						«	 	.			***************************************		***************************************		-	_			
ANEA V - "Detergent Area", Above ground tank farm east	A-VA B-VA	5	ND ND	530	56	energy versions	 		 	***************************************				l		l	.		4.4	470	1600
of Bidg, 8 (Tanks 29 -46,	AV-G	4 5	ND	120 01	- 27 ND		ll		I				********				-	-	50.1 ND		410
Pigte 1) Closure Samples collected	AV-G AV-D	5 5	ND ND	NO	ND ND		[I			· 	[NO NO		6.5
below sumps and drains in	AV-E	5	שא	410	ND ND							·	• And an opposite the second s	 			-	<u> </u>	10.1	120	1.3
containment area (see Drawing 2)	AV-E AV-F	5	ND ND	ND ND	ND ND	130 W/W W/	M. P M	*** ·		***************************************						ge ************************************			2.9	UAU	
AND CONTRACTOR BELLEN - JAMES 1919 MARKETS 193			I	· · · · · · · · · · · · · · · · ·	140			w.xxxxxxxxxx		 	THE VOLUME ASSESSMENT TO P										23
			2 N. 2 A.A.A. 2000				A 1.A W. WARRING	46. n vm moonneeseesee					0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	1	EAAAAAA	~~ x x x x x x x x x x x x x x x x x x	-	-	A. A. A.A.A.A. A. A. MODERNA MARKET M	***************************************	
	EB-14	5	*****************	***************************************	************	,	l			Yearn Manager A	·		** *** And Antonio Control of the Co			· · · · · · · · · · · · · · · · · · ·	I	 	4.8	ND	1.9
		10	I	**** A 14 AFAMMENTON					1										23.6	ND	ND
		15	l · · · · · · · · · · · · · · · · · · ·				····		1								1	1	ND	ND	ND
		20	-		- "	-	·		 	l	~ *** * * * **************************						·	1	6.7	ND	ND
			l	· · · · · · · · · · · · · · · · · · ·			<u> </u>		 ^	 		-					1	1			-l
	E8-15	5					[·····		t			<u> </u>	4 A . A & X C (4000 400 400 400 400 400 400 400 400 4	1	***************************************			1	TR<3	ND	12
		10	***************************************	1				* * ** *** *** ***	I				. Y 200000000000000000000000000000000000					1	14.3	ND	ND
			***************************************	†			f			·	·		****			<u>*</u>	·		1	hap.	ND
		15		9	1		L		1	,		1				1		1	TR<3.6	ND	140

	Post	Sample	Petro	leum Hydroca	arbons		Aromatic C	ompounds		Volatile Orga	inic Compound	ls (1)	**************************************	***************************************		***************************************			1		**************************************
LOCATION	Closure	Depth	TPH	TPH	TPH		****	Ethyl	1	Chloro	Methylena	Dichloro	1,1-DCA	TCE	PCE	Naptha	1,2,4	1,3,5			
	Exploratory	(feat below	C4-C12	C13-C22	C23+	Benzens	Tolueng	benzene	Xylenes	form	Chloride	difluromethang				lens	TMB	TMB	Form.	Ammonia	MBAS
	Soil	ground	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method
NAME OF THE PROPERTY OF THE PR	8orings	surface)	8015FC (mg/kg)	8015FC (mg/kg)	8015FC (mg/kg)	8020 (mg/kg)	8020	8020 (mg/kg)	8020 (mg/kg)	8260 (ma/kg)	8250 (mg/kg)	8260 (mg/kg)	8260	8260 (mg/kg)	8260 (mg/kg)	8260	8260 (mg/kg)	8260 (mg/kg)	8315 (mg/kg)	350 2m (mg/kg)	425 1m (mg/kg)
Practical Quantitation Limits		**************************************	G 5	10	10	0,005	(mg/kg) 0.005	(mg/kg) 0 005	(mg/kg) 0.01	(mg/kg) 0.01	0.01	0.002	(mg/kg) 0.005	0 003	(mg/kg) 0 003	(mg/kg) 0 02	0 005	0.005	2	10	1
PRG	1	COANAL	none	none	กอกย	3 2	2800	690	990	11	25	350	3,900	17	25	none	none	none	100,000	none	none
		Whenever								***************************************											***************************************
A-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	200			4							,				ļ						
50000000000000000000000000000000000000	EB-16		Ī				~~~~~						<u></u>		{	announded the resemble	ļ	ļ	10.1	ND	L
	ED-10	5 10	l				w:	l					,			ANNONESCO (MICHIEL MICHIEL		NO -	MD	7. 1 5.6	
		15	***************************************	11111111	200000 AAA		. 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.	<u> </u>	***************************************					I	<u> </u>		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ND		***************************************
		20							T				Delate Exc.		<u> </u>				3		
					******											- 18					
	€8-17	5 10	<u> </u>											***************************************		~~****	 		ND ND	ND ND	ND ND
		15	l		`				ļ		-					f-woulderwood oor			12.3	- NO	
Name of the state		20					··· •• • • • • • • • • • • • • • • • •		· [****	 		2.6		
	***												V								
	EB-18	5	 				***************************************	***************************************	<u> </u>										6.1	ND	4.6
		10 15			····			ļ	-					-]					5.5 7.6	ND	5.7
		20			7 34 AWAY TOO A AMADONAAAAAAAAA			İ		~ 14.7					}		_		3.7		
			l				— — Park our recomment or		l	Section Sections (1) A V V V V V V V V V V V V V V V V V V		^^ ^ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				An application of the eventure of the second				App appapate an assume the assume the second desirability of the second desirability and the second desirability of the second desirability and the second desirability of the second desirability and the second desirability a	No. Also Mario, No. Advances Areas Areas Areas Areas
2 STATE SHIPPOWER																	***************************************				
Former Fuel Oil and Alkane	HA-7	6	ND	3000	ND													<u> </u>			
Oil Tanks west of "Storm- water Retention Area", (Tanks	HA-8	6	ND	17	NO							**********									
0223 and 0224)	Martin		-														-	<u> </u>			
-	E8-12	5	ND	150	720				<u> </u>						•••					*****	
And the second s		10	0.68	1500	ND			.2000.				***************************************								w • • • • • • • • • • • • • • • • • • •	
		15	- ND	ND	NO.				-			——————————————————————————————————————	!				ļ				
		20 25	1 1 1 ND	ND 58	ND ND	***************************************														·····	
		30	ND	77	31				1.0.4	<u> </u>		***************************************			 	 	1				-
		35	ND .	ND	ND								And any on the second			1				******	
													.				4.,				
vandeline	EB-13		475	550	4CA									4 4.74.1							
Transmission	ED.14	5 10	170 ND	1400	160 ND								······			ļ					<u></u>
Commission	MANAGEMENT AND AND AND AND AND AND AND AND AND AND	15	סא	15	ND						***************************************						<u> </u>	<u> </u>			†
		20	ND	660	ND			***************************************				,								***************************************	
		25	1,8	110	ND						.,										ļ
		30 35	1.8 ND	36 ND	ND ND		4.00			 		/.> > .4 /								***************************************	-
		40	ND ND	ND ND	סא	0 100 000000000000000000000000000000000			1	n Websersonsonsonson voncentronsonsonson	~~ ~~ ». »		·		A QUINTERS MINT A COUNTY .		_				
			N.20 1.200p.14 1.4		*** ***********************************			11.2			***************************************		***************************************	3 4 4 4 3 3 3 4 4 400000000000000000000							
								***************************************												ALL A CALL OF A	
CLARIFIERS																···	1			Y'' MY WIN CHE TO BY THE WOOD	
	5.5														LIB						ļ
Clarmer between Bidgs 2 and 14	Q-€ Q-W	B B	A. A.	ļ		ND ND	ND ND	ND ND	ND ND	0.11	NO 0.025	ND ND	ND NO	ND ND	ND DN	ND ND	ND ND	ND NO		,	
		,				14.55			,767		W.UAU		1112	1112	11.00	141.		1			
	EB-8	5	·			ND	ON	ND	ND	0.01	ND	0.0043	ND ND	ת א	ND	סא	ND	NO			
		10	v v vvvvv			ND	ND	ND	ND	0.076	ND	0.0043	NO	,ND	NO	ND	ND	ND			
	No.	15			1	ND ND	ND	NO NO	ND	0.6	ND	ND	NO NO	ND	NO NO	ND	ND ND	NO ND			
		20 25			l	ND ND	ND ND	ND ND	ND NO	0.024 ND	ND ND	0.0036 ND	ON ON ON	0.022	ND ON	ND ND	ND ND	ND ND	 		
		25 30	·	·		ND ND	ND ND	ND ND	ND ND	NO NO	ND	ND ND	0.0058	0.051	ND -	ND ND	ND	ND	· · · · ·		1
		35		l	†	ND	ND	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND			
- A- COLOR		40				ND	ND	ND	ND	ND	GN	ND	ND	0.0031	NO	ND	ND	ND		. 1.0.12	
		45		1	<u> </u>	D.D1	ND	ND	ND	NO	ND	ND	ND	ND	MD	ND	ND	ND		***************************************	

Clark Clar		Post	Sample	Petro	ileum Hydroca	rbons	PPtococcos and delection continues and the conti	Aromatic C	omnounds	**************************************	Volatile Orga	nic Compound	s (1)	200000000000 0000000000000000000000000	***************************************		**************************************	***************************************	pococción de la la la la la la la la la la la la la		poppoparate verver and a second secon	
Secretary Performance Pe	LOCATION	i .	1	***************************************		**************************************				[pannanaaaaa	·	1,1-DCA	TCE	PCE	Naptha	1,2,4	1,3,5	i I		***************************************
Part Windows		1	1	8	1	1 .	Benzene	Toluene	1 -	Xylenes	i		1			. ==	-	1	4	Form.	Ammonia	MBAS
Principal Connections until 1			1	\$		ļ		***************************************		<u></u>		Method	ţ <u></u>	Method	Method	Method	**************************************	Method	Method	Method	Method	Method
## 15		Borings	surface)	8015FC	8015FC	8015FC	8020	8023	8020	8020	8260	8260	8260	8260	8250	8260	8260	8260	8260	8315	350 2m	425 tm
PRO				(mg/k g)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
## 15	Practical Quantitation Limits			0.5	10	10	0 065	0.005	0 005	001	0.01	0.01	0 002	0 005	0.003	0 003	0.02	0.005	0 005	2 1	10	1
March 1	PRG			поле	none	none	3.2	2800	690	990	11	25	350	3,900	17	25	nané	none	none	100,000	поне	none
Marchard or Marc			1																			
Fig. Fig.			•												_							W. b. b. 2.2.2.2.
Formation Form		1						** ** *********************************					R									
Main Control of the Part of		EB-9	1						***************************************	<u> </u>	> " .+				······································			<u> </u>				_
20			1	·						· · · · · · · · · · · · · · · · · · ·		Į		VARIANTE STEET			MAAAAA T TTTTT					
23			1		·						······································	*************************************		***************************************			ŧ	·				
## 15-10 Fig. 10 Fig.			1		•	·						d.m				/ A	Į	. 	-	ļ		
## 15			1	×: ·				~		•			24			I		1	.4	 		
## 150 100			1					******				·····	}-					. 🕯		 		
Tend			1												~ }			<u></u>				
EP-10 6			£														Į ~~~	3				
10		1																				
10		EB-10	5	l			ND	NO	ND	ND	0.1	ND D	מא	ND	DA	ND	ND	ND	ND		▲ ····································	
20			10				ND	ND	ND	NO	0.15	ND	ND	ND	ND	ND	NO	NO	ND			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
23			15	CAMMAN AN ANA			ND	ND	ND	ND	0.099	ND		ND	ND	ND	NO	ND	ND			www.vvaaaaaaa
\$9.11 \$			1				ND	ND	ND	ND	0,072	ND	NO	ND	ND	NO	NO	ND	ND			
## APPLIANCE AND PROCESSES AND			8		A.F. A. Aryonia Annoque	***************************************		NO	NO		ND	ND										
## 14			¥									,	ļ		.]		·	-				******
# EB-11 5			•												_ {			1		l	***************************************	
EB-11 5 ND NO NO NO NO NO NO NO NO NO NO NO NO NO			1					********************	h	<u> </u>				AMILY 1777777			Ant-creer					
10			45	20000000000000000000000000000000000000			0.031	NU	นก	un un	iar:	NU		MD	V.W32	nv	RU	140			.,,	
10		EA-11	5	<u>-</u>			NO	Nn	ND	Nn Nn	Mri	N/3		NO.	ND	l wn	ND ND		- ND	ł		THAT I ARE WAS IN
15		1 20	1	. , , , , , , , , , , , , , , , , , , ,		waaaaaaa			~				<u> </u>	ARREST AND THE ARREST AND ADMINISTRATION AND ADMINI		į	I	·1		╂		
Part			1							+		\$ · ·	£	- 4 07 00 000000000000000000000000000000		I	<u> </u>					***************************************
S			20	AND PROPERTY OF THE PROPERTY O							3 — 222222 AMAR AMAR AMAR AMAR AMAR AMAR AM			*			ND	· 1	ND			
Second S			25	I			מא	ND	ND	ND	0.028	ND	ND	ND	ND	ND	ND	ND	ON		> _40./.	
Man Clurifier at the South R1 16 ND 49 MD ND ND ND ND ND ND ND			30				ND	ND	ND	ND	ND	ND	NO NO	ND	ND	ND	ND	D	ND			
Main Clusteer withe South R1 14 MD 49 ND MD MD MD MD MD MD MD			35				NO	ND	ND	ND	ND	NO	ND ON	ND	ND	ON	ND	מא	ND			
Man Clarker at the South R1 16 ND 49 ND ND ND ND ND ND ND ND ND ND ND ND ND	1		1								I —		!				ļ	}	_ [·····
Man Clarifier at the South R1 16 ND 49 ND ND ND ND ND ND ND ND ND ND ND ND ND			45				ON		ND ND	ND	ND ND	, ND	ND NO	OMD	ND	ND	ND .	ND.	ND ND	 		*******
Main Clarifier at the South Gate Proceeding the Sewir B2 16 0.61 13 ND ND ND ND ND ND ND ND ND ND ND ND ND					~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							***************************************		ļ	ļ		_			
State Proceeding the Sewar R2 16 0.61 13 HD ND ND ND ND ND ND ND		 _	1]			l	<u> </u>				l		
State Proceeding the Sewar R2 16 0.61 13 HD ND ND ND ND ND ND ND	Man Clarifier of the South	B4	4.0		·				***	No	B183	ND	l No	AIP		800		0.00		ļI		230
EB-1 5 ND 200 1500 ND ND ND ND ND ND ND	· ·	1	1		I			700000000000000000000000000000000000000	1			3	į	A ANNE 1			L	<u></u>	. 1	<u> </u>	NAME OF THE PARTY AND ADDRESS OF THE PARTY AND	47
EB-1 5 ND 206 1500 ND ND ND ND ND ND ND ND ND ND ND ND ND		R.2	1 "		1.3		ND .				P41.3	nu-			1 70	<u></u>	1	1 10	1 110	 		
10 ND 13 21 ND ND ND ND ND ND ND N												• v v				*******	l	1	†	· ····································	······································	
10 ND 13 21 ND ND ND ND ND ND ND N	1	EB-1	5		200	1500	ND	ND	ND	ND	NO	ND	ND T	ND	NO	ND	ND	0.011	ND	1		U I CANADO MADO CANTONIO MADO MATERIA DE LA CANTONIO DEL CANTONIO DEL CANTONIO DE LA CANTONIO DEL CANTONIO DEL CANTONIO DE LA CANTONIO DEL CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DEL CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANTONIO DE LA CANT
15 3.3 89 99 ND ND ND ND ND ND ND ND ND ND ND ND ND			i				COCCOMMO	***************************************								4 - day of parameters		·•		 		***************************************
20 ND ND ND ND ND ND ND N			15			i 1			ND	.	ND			ND	ND	DM	ND	ND	QN Q			
30 ND ND ND ND ND ND ND N			20	3 ———	ND .	ND	ND	ND	ND	ND	ND		1	ND	NO		0.21	0.22	0.055			
35 ND ND ND ND ND ND ND N	A STATE OF THE STA		1	ND	20	ND	ND	ND	ND	ND	ND	ND	ND	NO	NO	ND	0.14	0.22	0.047			
40 ND ND ND ND ND ND ND ND ND ND ND ND ND			2		1							······································	I		~ [<u> </u>						
AREAS OF CONCERN OF NEEDING ADDITIONAL ASSESSMENT 45 ND ND ND ND ND ND ND ND ND ND ND ND ND	Marian Paris Control Paris Con		8		1	****							1					A.A. A. A. MANAGAMA				
AREAS of CONCERN or NEEDING ADDITIONAL ASSESSMENT						t		~ ***	I		<u></u>	·	j			***************************************	·		t _ 1. A.A			
AREAS of CONCERN or NEEDING ADDITIONAL ASSESSMENT			45	ND.	ND	ND _	ND	ND	Į ND	ND	ND ND	<u>ND</u>	NO	ND	, ND	l ND	NO NO	ND ND	ND			
AREAS OF CONCERN OF NEEDING ADDITIONAL ASSESSMENT									‡ \$11225555555555555555555555555555555555					AND THE RESERVE OF THE PROPERTY OF THE PROPERT			<u> </u>	1	.	-		
NEEDING ADDITIONAL ASSESSMENT I I I I I I I I I I I I I I I I I I I	AREAS of CONCERN or					,				<u> </u>						 	700000000000000000000000000000000000000			l	33. 222.20000000000000000000000000000000	~
ASSESSMENT																• • • • • • • • • • • • • • • • • • • •	l	_			v ammaaann vaa aa aa aa aa aa aa aa aa aa aa aa aa	
				!				*************************		†				~-····	······································				· 	1		
	***************************************				· · · · · · · · · · · · · · · · · · ·								OCCUPATE LAND.		1		l	<u> </u>	 	t		
Lube Of Storage Area inside HA-2 3 0.5 3200 5500	Lube Oil Storage Area inside	HA-2	3	0.5	3200	5500		·····			***************************************			***************************************		× * * * * * * * * * * * * * * * * * * *		1	1	†		v
Bidg 6	1			I	· 	-	**************************************			1				4 * * * 4 * *	1	!	1					

110000111001111011111111111111111111111	Post	Sample	Petro	leum Hydroca	rbons		Aromatic C	ompounds		Volatile Orga	anic Compounds	(1)									
LOCATION	Closure	Depth	ТРН	TPH	TPH			Ethyl	T	Chlero	Methylene	Dichloro	1,1-DCA	TCE	PCE	Naptha	1,2,4	1,3,5			
	Exploratory	(feet below	C4-C12	C13-C22	C23+	Benzene	Toluene	benzene	Xylenes	form	Chloride	difluromethane				tene	TMB	TMB	Form.	Ammonia	MBA
	Soil	ground	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Method	Metho
	Borings	surface)	8015FC	8015FC	8015FC	8020	8020	8020	8020	8250	8260	8260	8260	8260	8260	8260	8260	8260	8315	350.2m	425.1
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/xg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/k
Practical Quantitation Limits			0.5	10	10	0.005	0 005	0.005	0.01	0.01	0.01	0.002	0.005	0.003	0.003	0,02	0 005	0 005	2	10	1
PRG			none	none	none	3 2	2800	690	990	11	25	350	3,900	17	25	none	none	none	100,000	none	none
					55111111111111111111111111111111111111														and the second		
	EB-4	5	ND	ND	ND					***************************************		A &	a makada aka 1988 18 maya ayay masa		***************************************			1 ,	.		- [
		10	ND	ND	ND		Ī -							T-							
		15	ND	ND	ND	MEETE MARKET						-1			_				1		
		20	ND .	ND	ND												ļ				
	EB-5	5	ND	ND	ND	· · · · · · · · · · · · · · · · · · ·		.4.4.400.2.0000000000000000000000000000	ļ		 										
		10	ND	NO	ND	****					-	**							<u> </u>		1
		_											(4/** 0		***						
	EB-6	5 10	ND NO	ND ND	ND			-				v- v-					-	ļ	·		
		10	114/	ALL ALL HOW ADDRESS OF THE	HD.	A ANDRES MATRICIONAMINACIONALE		A ANA ANDRONANANANANANANANANANANANANANANANANANANA		W 1006/01 12. ///////////////////////////////		A A A A B A A MONTH WATER WATE	333433900000000000000000000000000000000	***************************************			**************************************	1, An Abrield in Laurence Branchwich			
	EB-7	5	NO	150	430			*				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	b" - Pan - Name							***************************************	
		10	ND	ND	ND	~~~~~	- ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~														
											-				<u></u>	***************************************	<u> </u>		<u> </u>		
POST-CLOSURE						······		***************************************	-	·	 1						1		<u> </u>		-
INVESTIGATIVE DERIVED	And opposite											CL								ļ	
WASTE													14				 	ļ	1		-
Sail Stockpled derived from the	MW-11(2)		ND	ND	ND	ND	ND	ND	ND	ND NO	ND	ND	ND	ND	ND	ND	ND	ND	1	 	1
nstallation of monitoring wells	MW-12 (2)		ND	מא	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ON	ND	ND	ND			
MVV-11, MVV-12 and MVV-13)	MW-13 (2)		ND	ND	ND	ND	ND	ND	ND	NID	ND	ND ND	ND	ND	ND	ND	ND	ND			
			*	***************************************			-	I	1			-y N American				1			I		

NOTES

Refer to Plate 3 for sample locations

Certified Analytical Laboratory Reports and Chain-of-Custody Documentation are provided in Appendix C

ALL Methods shown are U.S. EPA Methods unless otherwise listed

ND(<50) = Not Detected at an elevated method detection limit shown in parenthesis. Elevated limits due to matrix interfearences.

None = No Sample Collected for this Waste Management Unit. Refer to prior Phase II thorugh Phase IV investigations.

PRG = Preliminary Remediation Goal, U.S.EPA Region IX, September, 1995, for industrial soils.

TPH-FC = Total Petroleum Hydrocarbons, Fuel Charaterization

1,2,4 TMB = 1,2,4 Trimethylbenzens

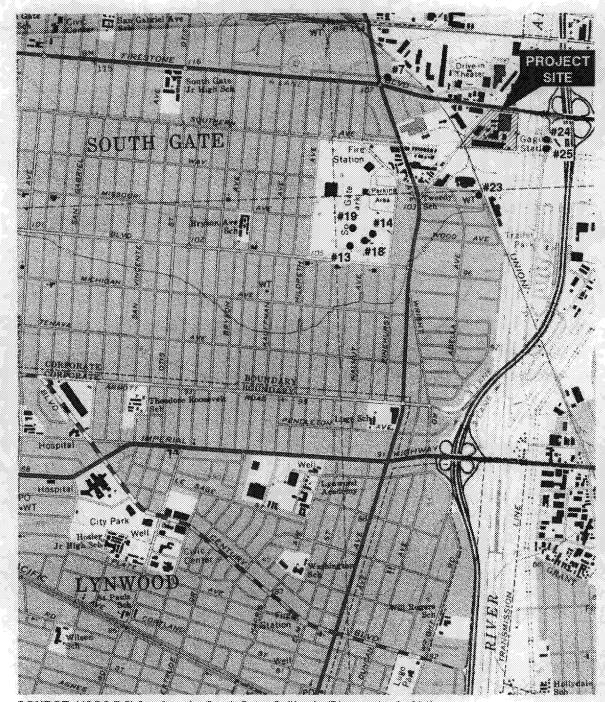
1,3.5 TMB = 1,3,5 Trimethylbenzene Form = Formaldehyde

MBAS = Methylene Blue Active Substances

(1) Volatile Organic Compounds reported in the soil samples collected and analyzed by EPA method 8260. Remaining VOCs from EPA 8260 Analysis were not reported above method detection limits

(2) Four composite soil samples were collected approximately 2 feet into the stockpile.

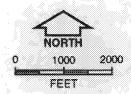
FIGURES

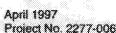


SOURCE: USGS 7.5' Quadrangle, South Gate, California (Photorevised 1981)

•*23 Municipal Supply Wells

SITE LOCATION MAP
THE DIAL CORPORATION
Main Facility
9300 Rayo Avenue
South Gate, California







(8421)

Ground Water Monitoring Well Location With Ground Water Elevation Measured February 24, and 25, 1997

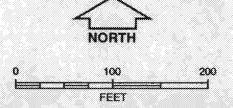
Ground Water Contour Elevation Measured in Feet (MSL): Dashed Where Approximate Queried Where Inferred.

NOTE:

MW-6* DATA REPRESENTS THE HIGHEST CONCENTRATION REPORETED FOR EITHER THE PRIMARY OR DUPLICATE SAMPLE

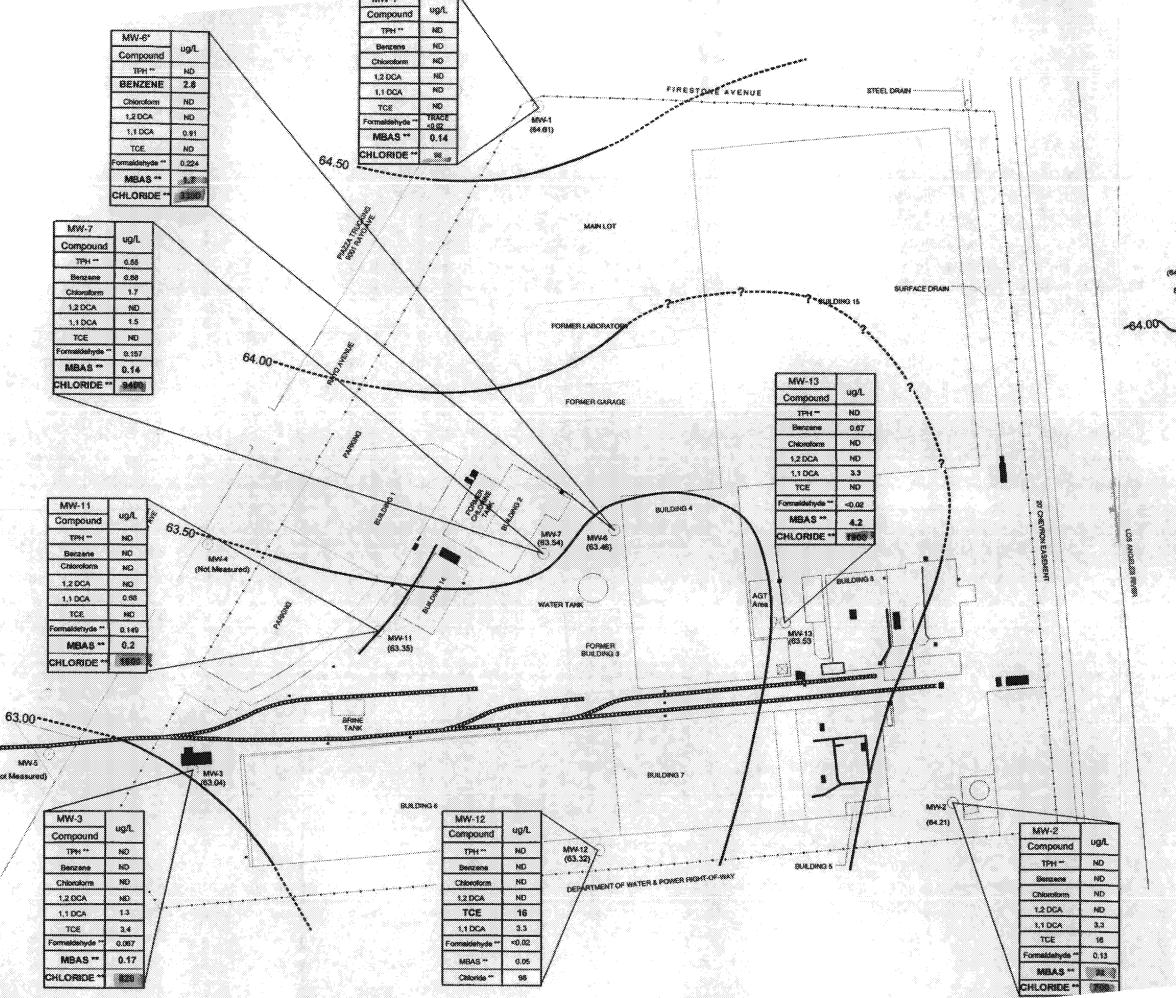
- * DATA SHOWN IN BOLD AND ALL CAPITALIZED IS ABOVE THE PRIMARYMOL OR SECONDARY MOL FOR DRINKING WATER
- ** DATA IS REPORTED IN MG/L

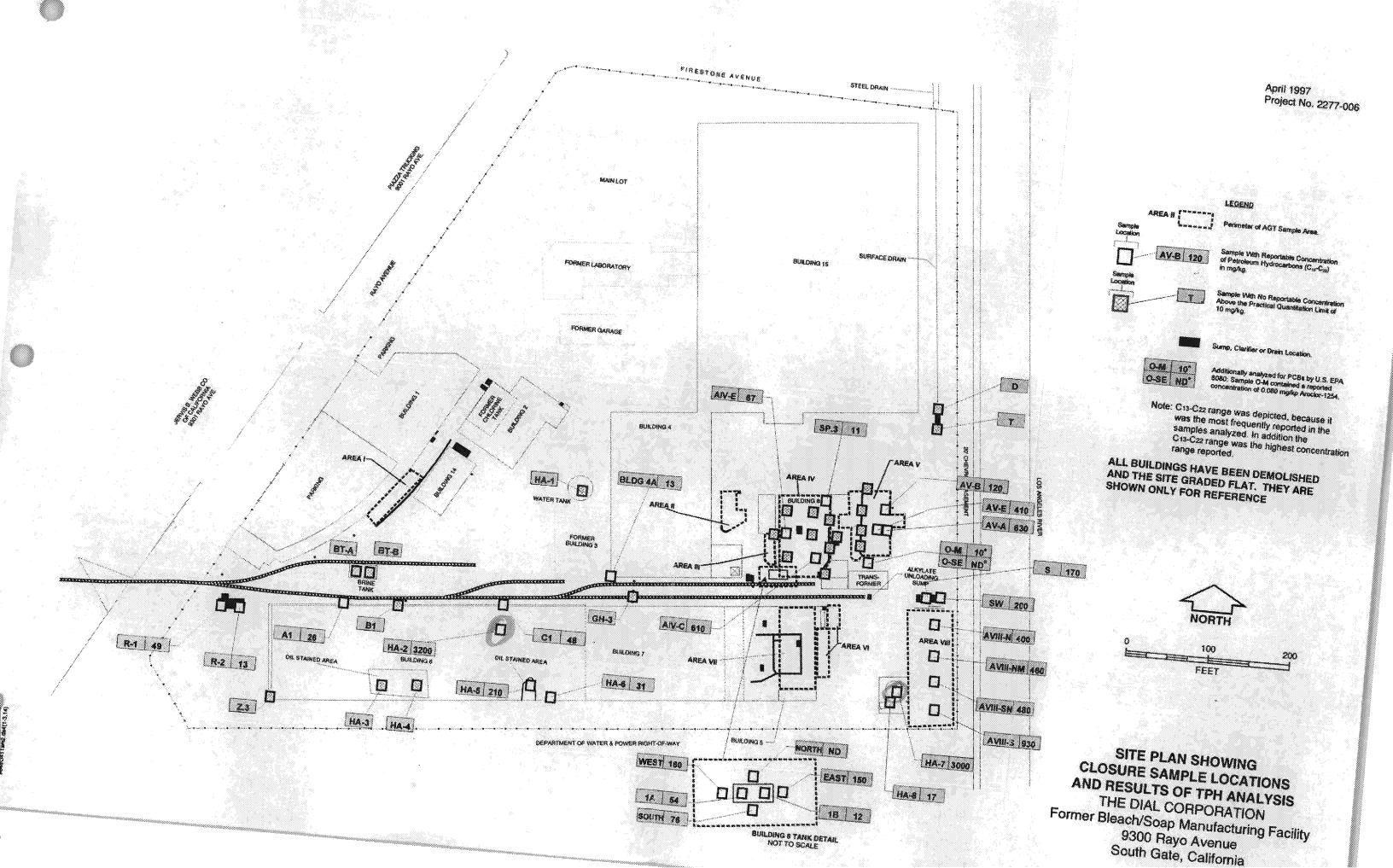
ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT. THEY ARE SHOWN ONLY FOR REFERENCE

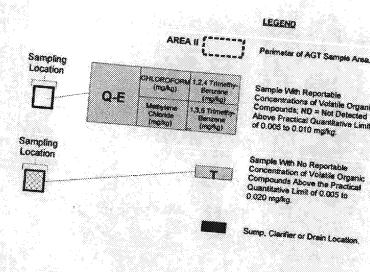


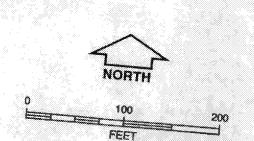
GROUND WATER GRADIENT MAP AND RESULTS OF POST-CLOSURE SAMPLING FEBRUARY 24 AND 25, 1997

THE DIAL CORPORATION
Former Bleach/Soap Manufacturing Facility
9300 Rayo Avenue
South Gate, California





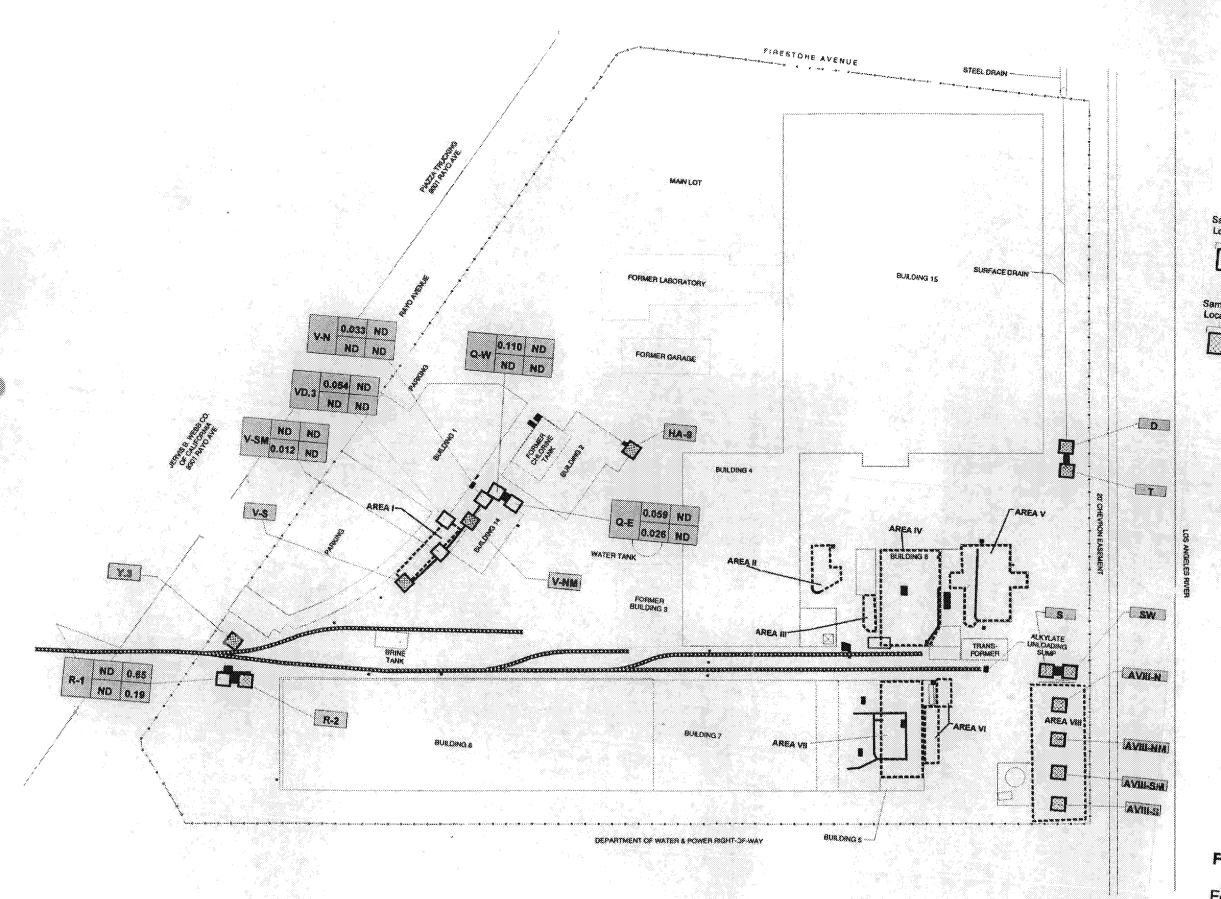


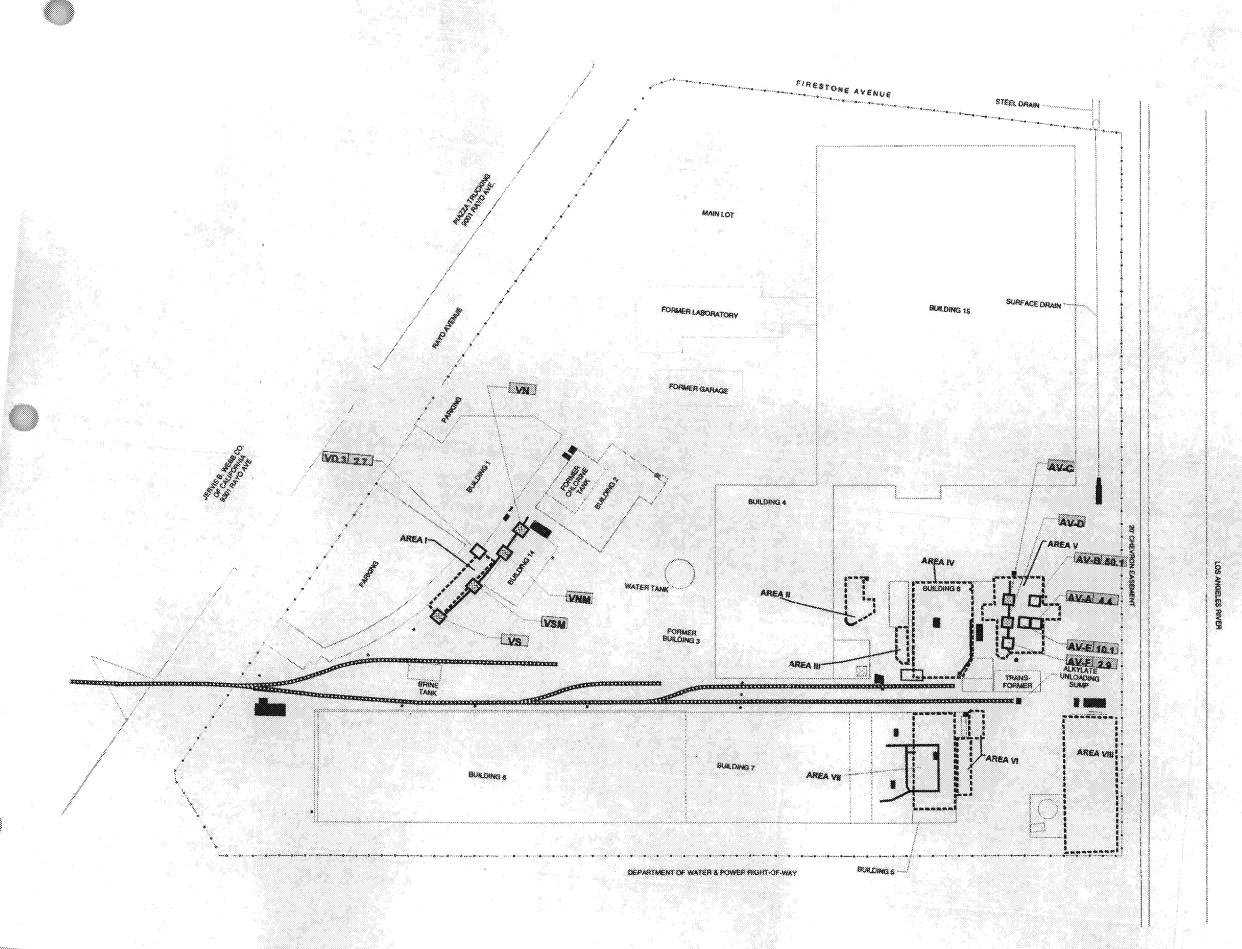


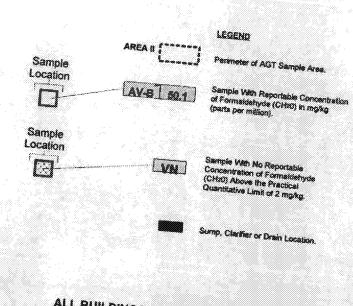
ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT. THEY ARE SHOWN ONLY FOR REFERENCE

SITE PLAN SHOWING
CLOSURE SAMPLE LOCATIONS
AND RESULTS OF ANALYSIS
FOR VOLATILE ORGANIC COMPOUNDS
THE DIAL CORPORATION

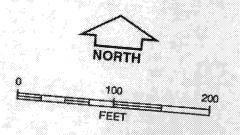
THE DIAL CORPORATION
Former Bleach/Soap Manufacturing Facility
9300 Rayo Avenue
South Gate, California







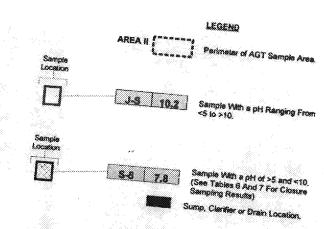
ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT, THEY ARE SHOWN ONLY FOR REFERENCE



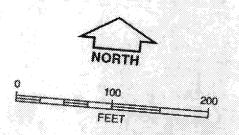
SITE PLAN SHOWING CLOSURE SAMPLE LOCATIONS AND RESULTS OF ANALYSIS FOR FORMALDEHYDE THE DIAL CORPORATION

Former Bleach/Soap Manufacturing Facility
9300 Rayo Avenue
South Gate, California

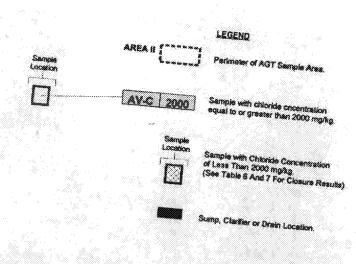
April 1997 Project No. 2277-006



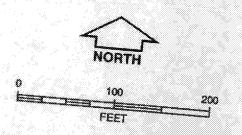
ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT. THEY ARE SHOWN ONLY FOR REFERENCE



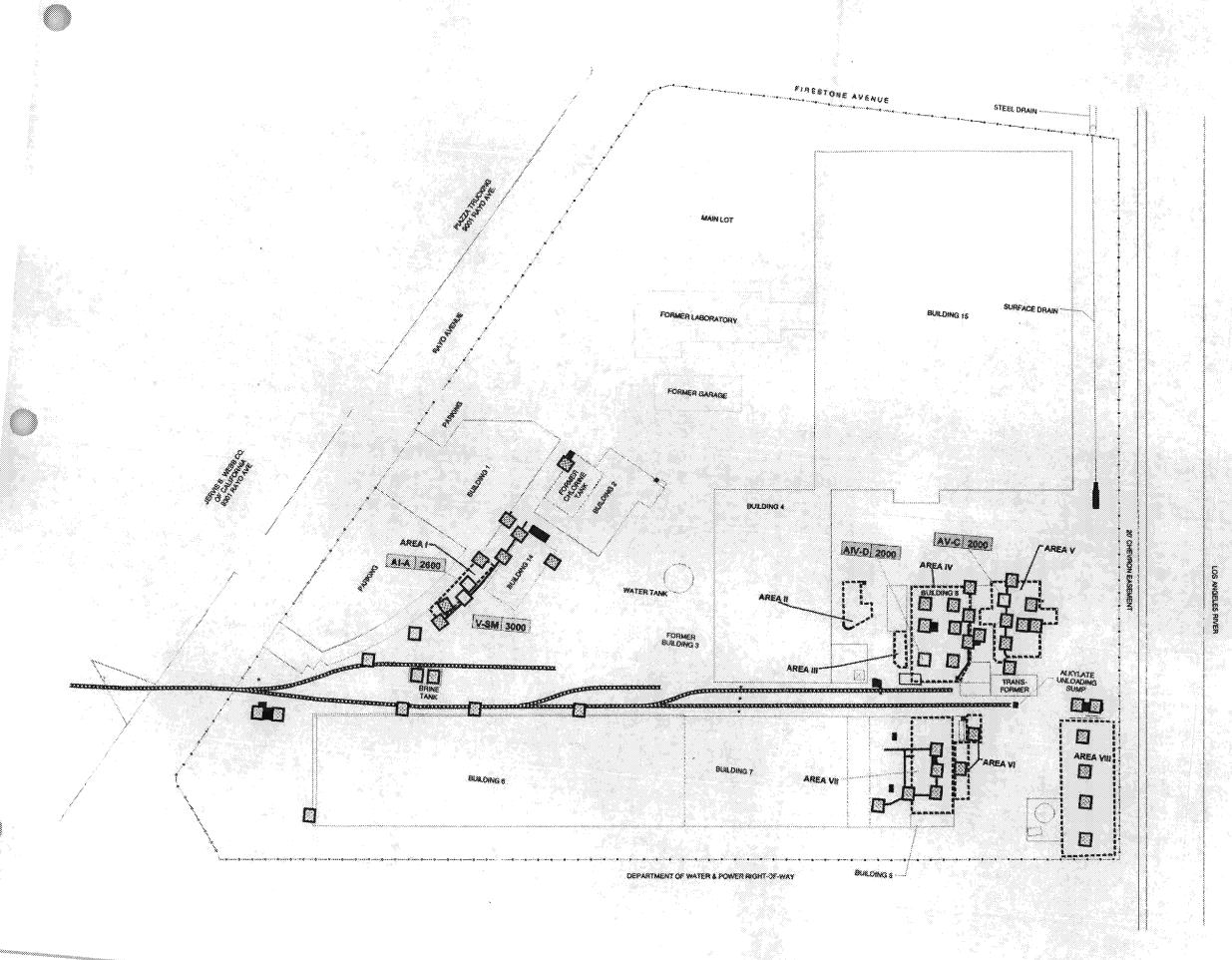
SITE PLAN SHOWING
CLOSURE SAMPLE LOCATIONS
AND RESULTS OF ANALYSIS FOR PH
THE DIAL CORPORATION
Former Bleach/Soap Manufacturing Facility
9300 Rayo Avenue
South Gate, California

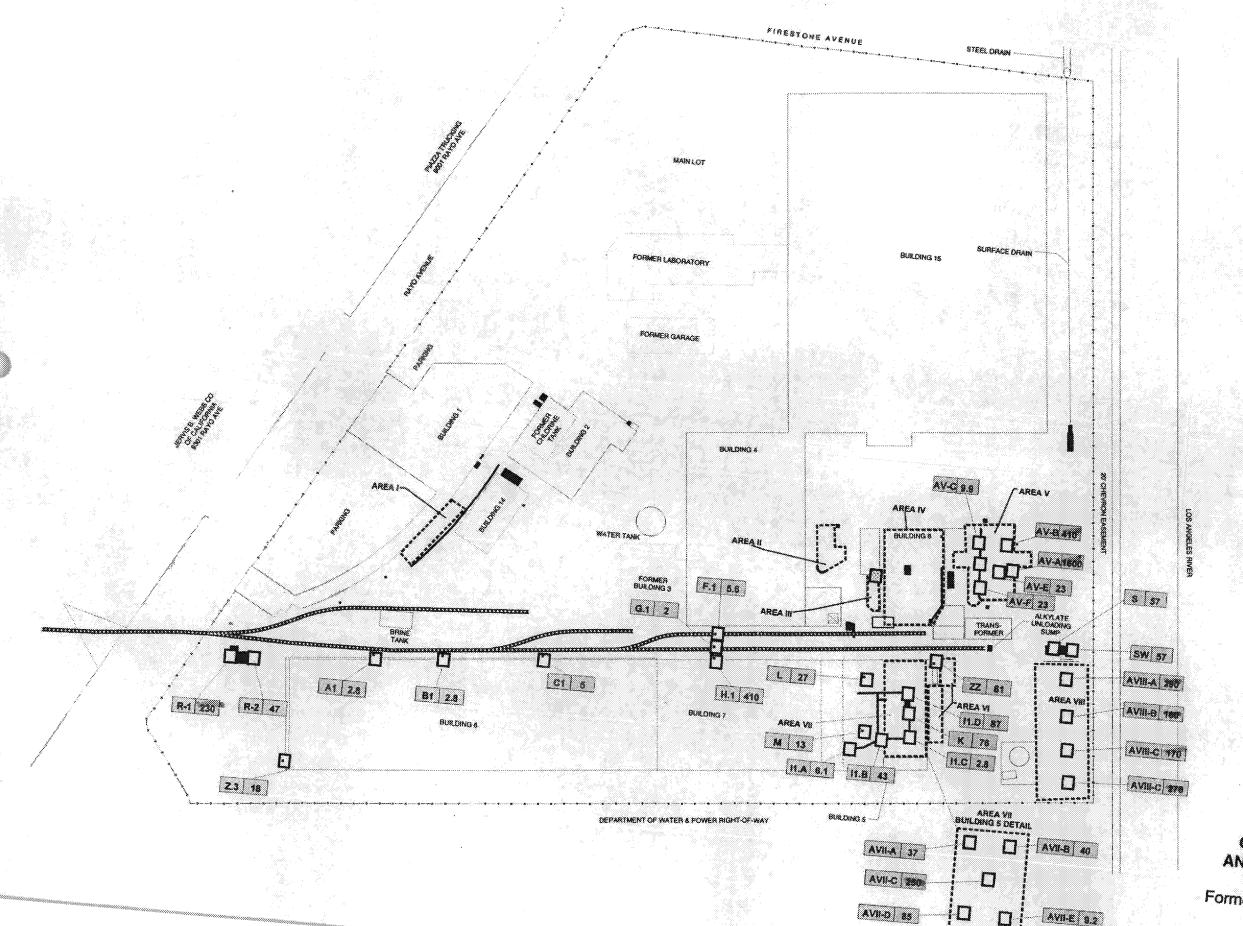


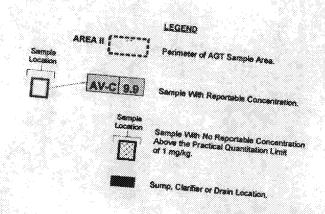
ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT. THEY ARE SHOWN ONLY FOR REFERENCE



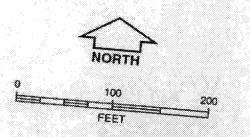
SITE PLAN SHOWING
CLOSURE SAMPLE LOCATIONS
AND RESULTS OF CHLORIDE ANALYSIS
THE DIAL CORPORATION
Former Bleach/Soap Manufacturing Facility
9300 Rayo Avenue
South Gate, California



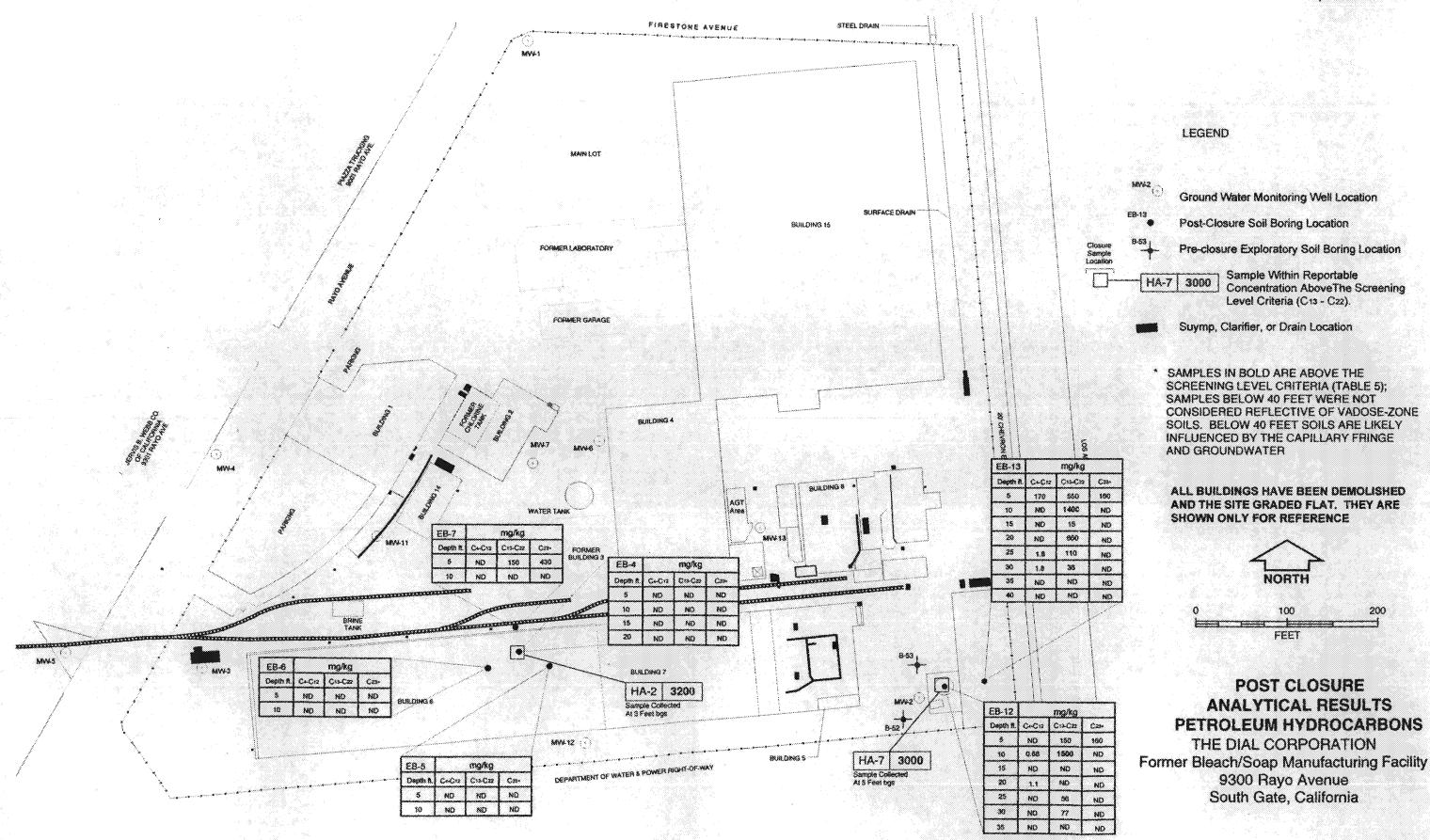


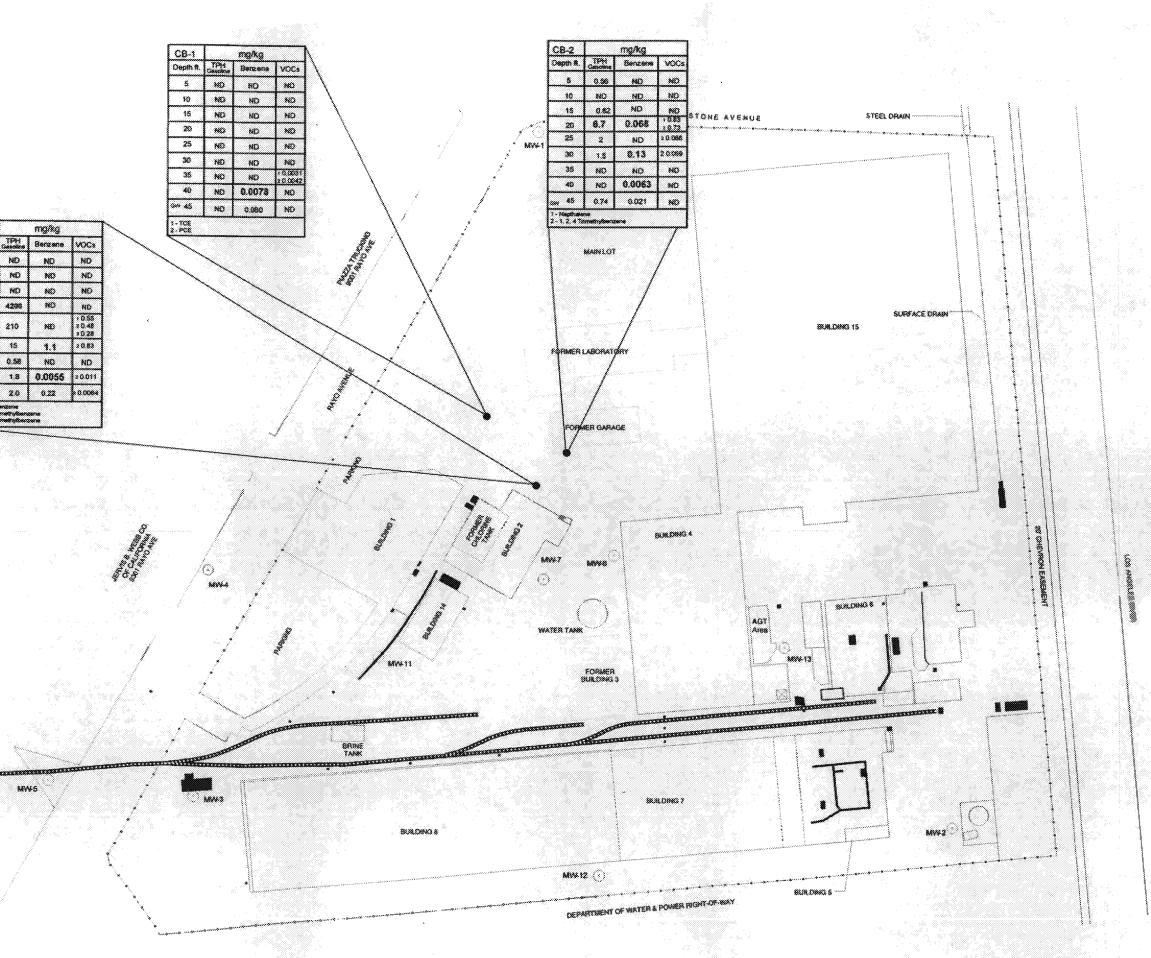


ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT. THEY ARE SHOWN ONLY FOR REFERENCE



SITE PLAN SHOWING CLOSURE SAMPLE LOCATIONS AND RESULTS OF MBAS ANALYSIS THE DIAL CORPORATION Former Bleach/Soap Manufacturing Facility 9300 Rayo Avenue South Gate, California





LEGEND

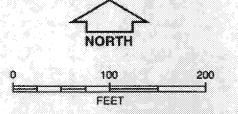
⁷⁸⁻² ● Post-closure Soil Boring Location

W42 Ground Water Monitoring Well Location

Sump, Clarifier or Drain Location

SAMPLES IN BOLD ARE ABOVE THE SCREENING LEVEL CRITERIA (TABLE 5); SAMPLES BELOW 40 FEET WERE NOT CONSIDERED REFLECTIVE OF VADOSE-ZONE SOILS. BELOW 40 FEET SOILS ARE LIKELY INFLUENCED BY THE CAPILLARY FRINGE AND GROUNDWATER

ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT. THEY ARE SHOWN ONLY FOR REFERENCE



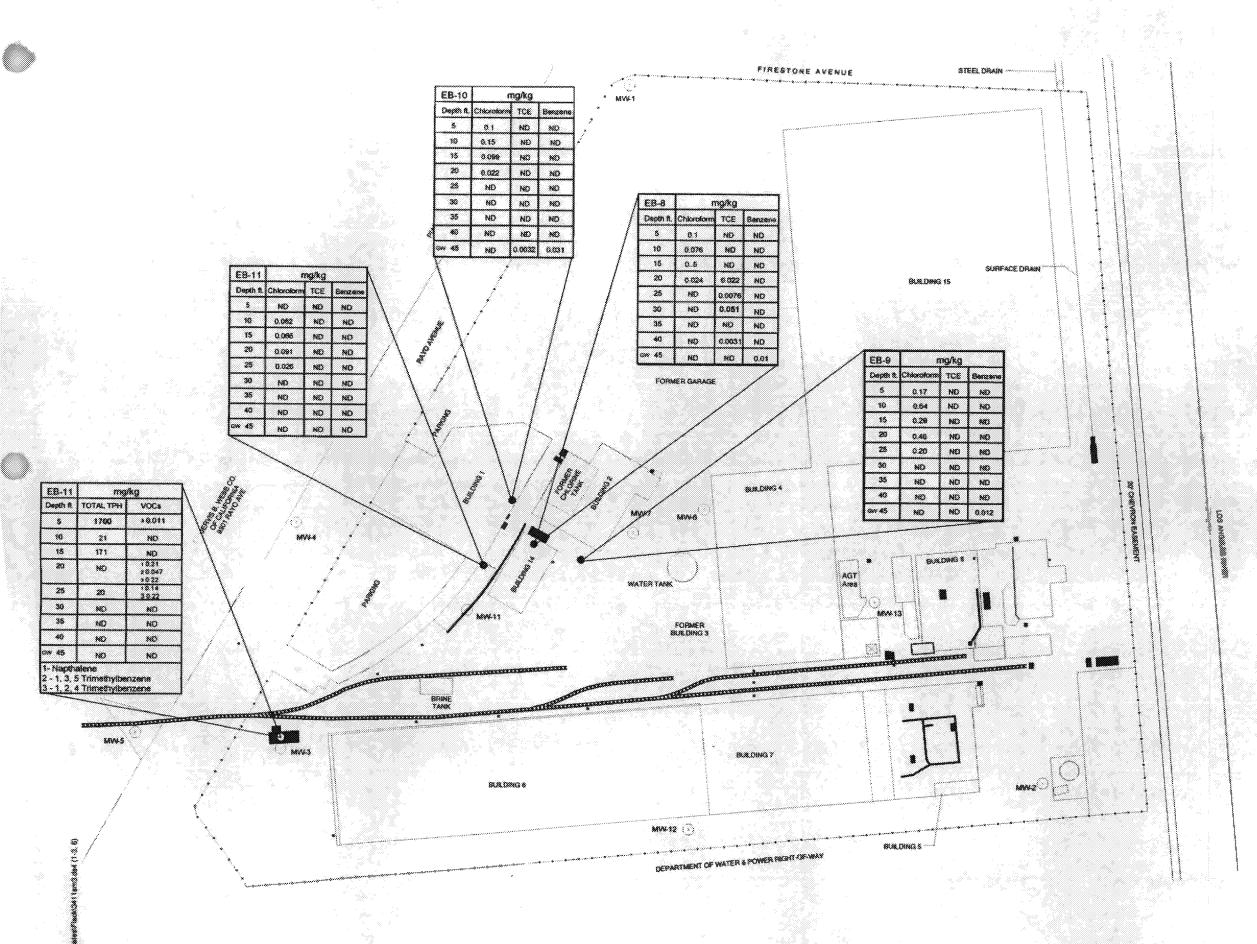
CONFIRMATORY SOIL BORINGS:
SVE CLOSURE, OLD GARAGE
AND LABORATORY
THE DIAL CORPORATION
Former Bleach/Soap Manufacturing Facility
9300 Rayo Avenue
South Gate, California

CB-3

10

20

300



LEGEND

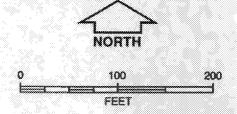
Ground Water Monitoring Well Location

Post-Closure Soil Boring Location

Sump, Clarifier or Drain Location

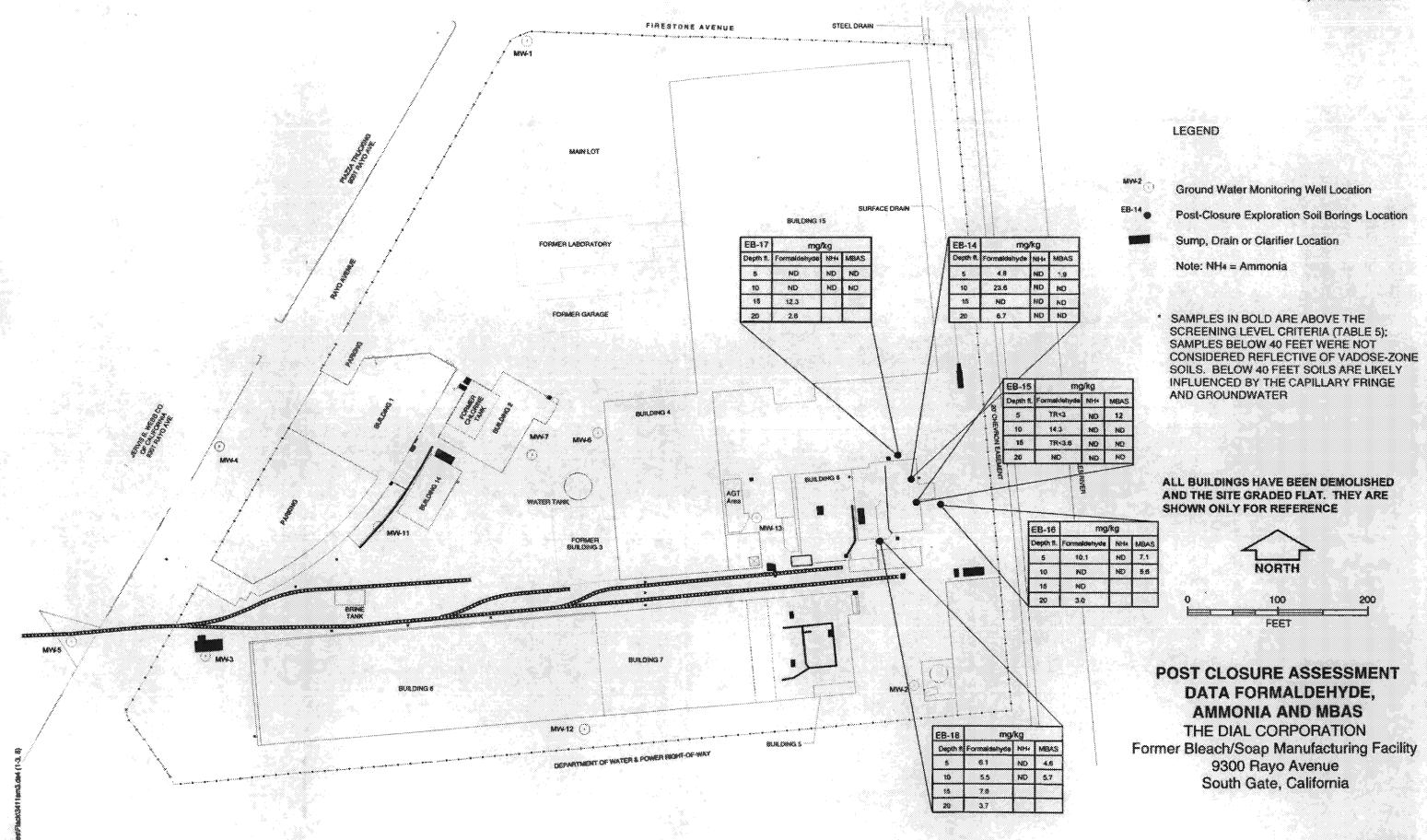
SAMPLES IN BOLD ARE ABOVE THE SCREENING LEVEL CRITERIA (TABLE 5); SAMPLES BELOW 40 FEET WERE NOT CONSIDERED REFLECTIVE OF VADOSE-ZONE SOILS. BELOW 40 FEET SOILS ARE LIKELY INFLUENCED BY THE CAPILLARY FRINGE AND GROUNDWATER

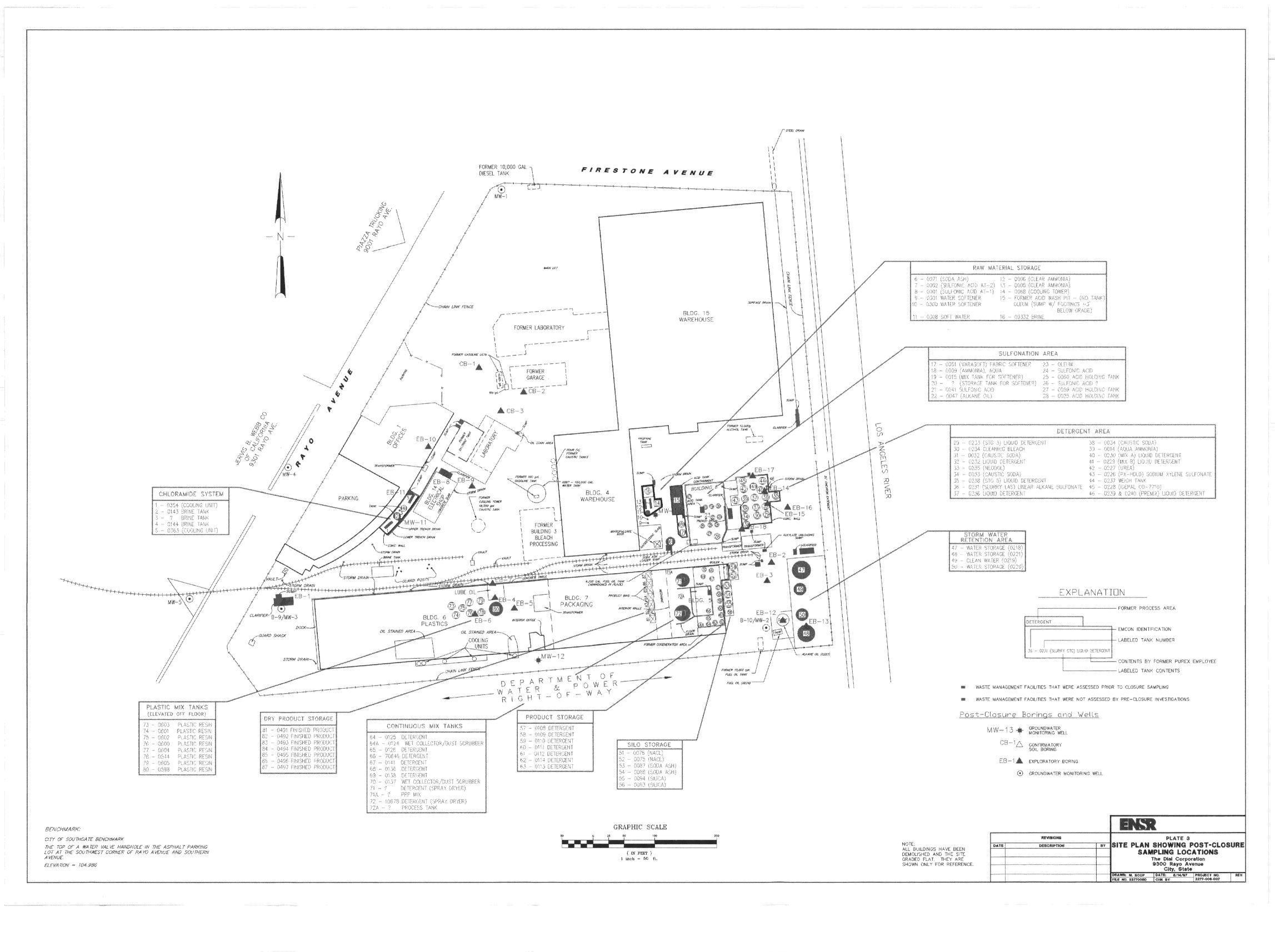
ALL BUILDINGS HAVE BEEN DEMOLISHED AND THE SITE GRADED FLAT. THEY ARE SHOWN ONLY FOR REFERENCE

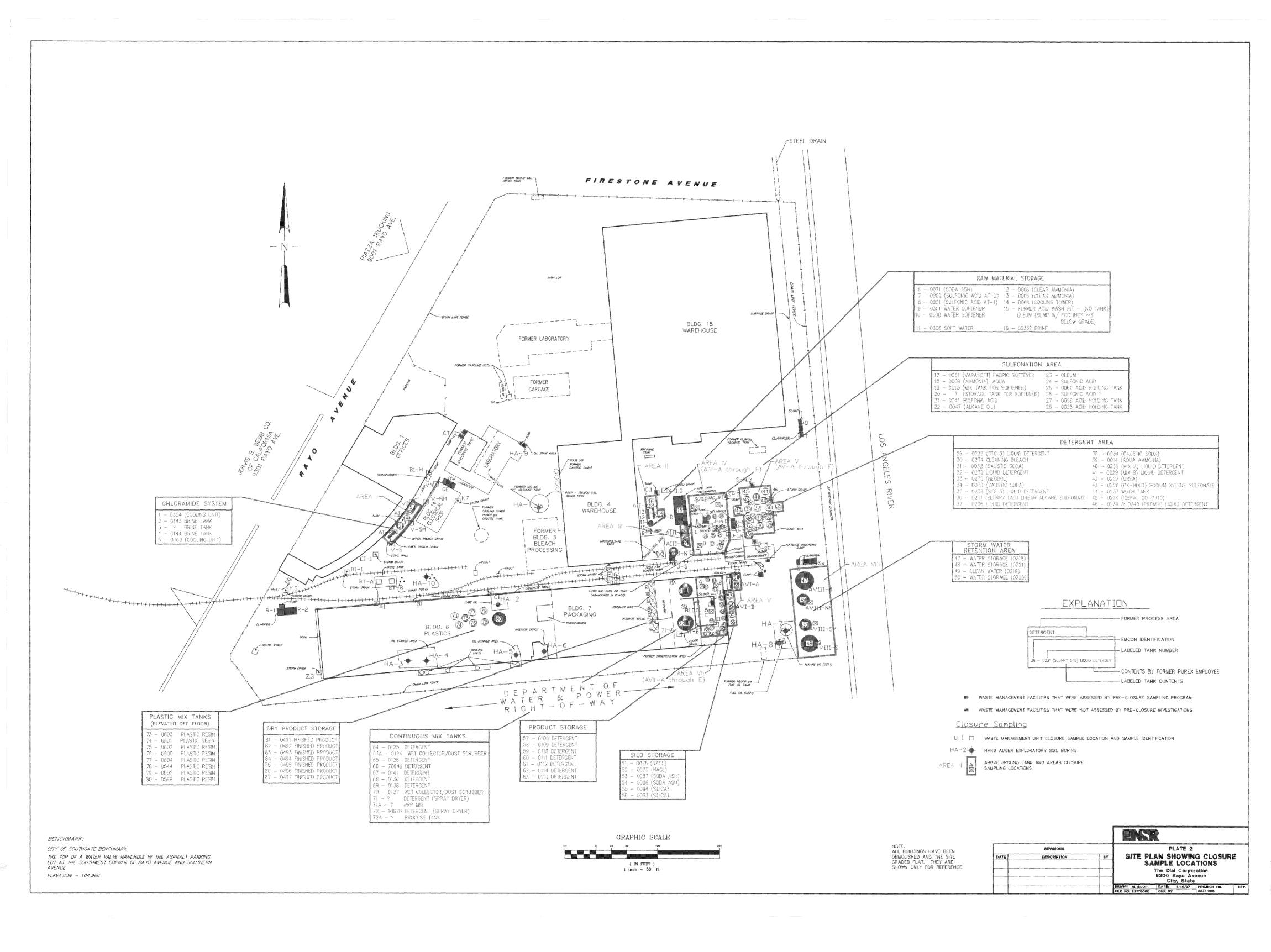


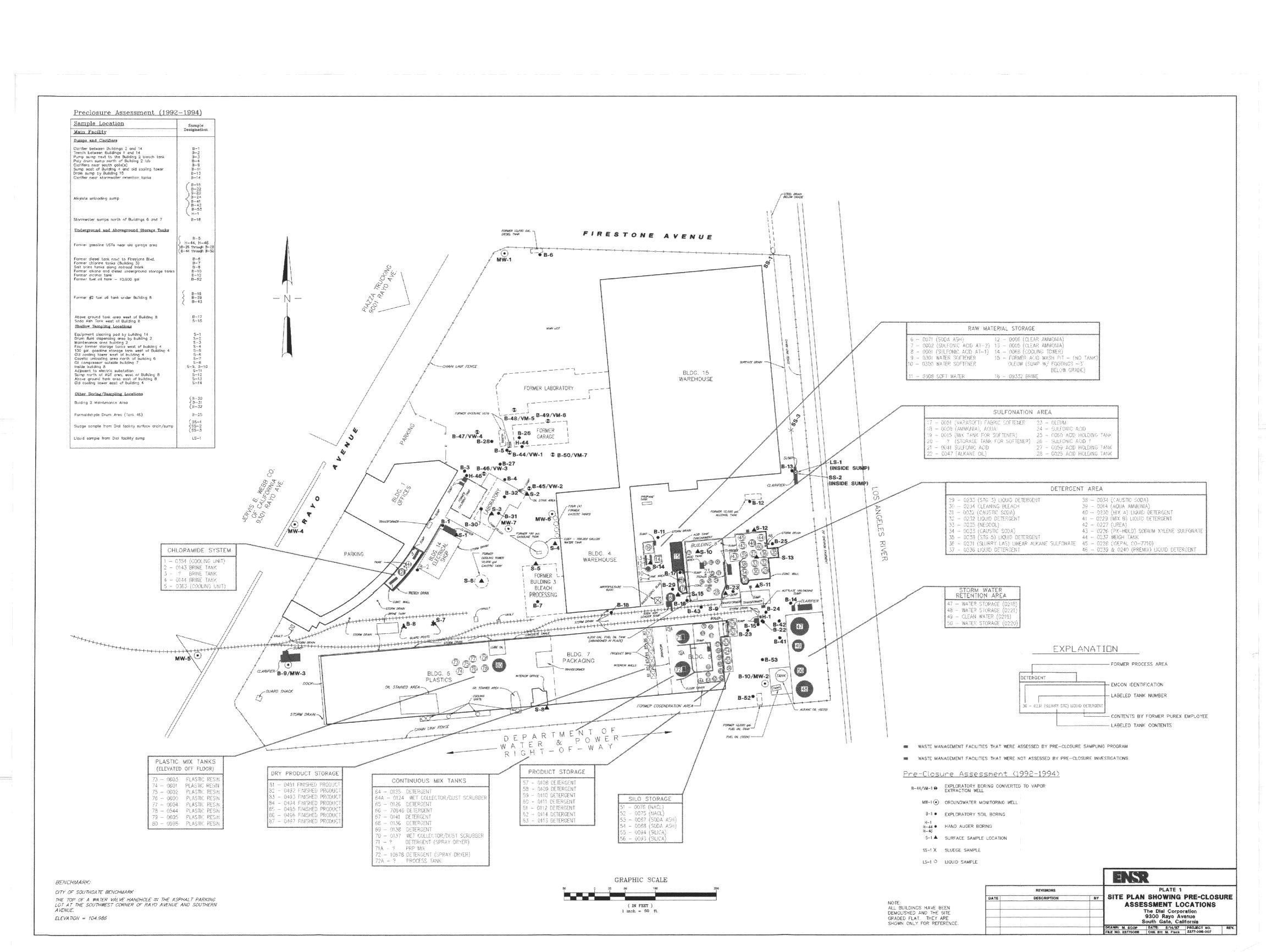
POST CLOSURE ASSESSMENT DATA VOLATILE ORGANIC COMPOUNDS

THE DIAL CORPORATION
Former Bleach/Soap Manufacturing Facility
9300 Rayo Avenue
South Gate, California











APPENDIX A

LIMITATIONS



APPENDIX A LIMITATIONS

This report has been prepared for the RWQCB, Los Angeles Region, on behalf of our client, The Dial Corporation, as a progress report for closure activities at the facility at 9300 Rayo Avenue, in Southgate, California. In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the standard of practice measured on the date of the work and in the local of the project site for similar type studies. ENSR does not guarantee the accuracy or completeness of data collected by third parties. ENSR makes no warranty, express or implied, concerning any of the materials or services furnished.

The analyses and interpretations in this report have been developed, based on review of existing information pertaining to the site and review of analytical results from ground water samples collected from discrete locations. It should be recognized that subsurface soil and groundwater can vary laterally and with depth below a given site, and that contamination can go undetected in any limited subsurface investigation.

APPENDIX B

CERTIFIED ANALYTICAL LABORATORY REPORTS: CLOSURE SAMPLES

(SEE VOLUME II)



APPENDIX C

CERTIFIED ANALYTICAL LABORATORY REPORTS: POST-CLOSURE SAMPLES

(SEE VOLUME II)



APPENDIX D

WASTE MANIFESTS

Submitted to:

FUGRO MCCLELLAND 5855 OLIVAS PARK DRIVE VENTURA, CALIFORNIA 93003

Attention: MIKE FLACK

Project:

THE DIAL CORPORATION
9300 RAYO AVENUE
SOUTH GATE, CALIFORNIA

TEG JOB NO'S. A96-299/D96-054

Submitted by: TEG, THE ENVIRONMENTAL GROUP

STECIAL WAS IE SHIFINIEM I RECORD

Butterfield Station Regional Landfill Facility 40404 South 99th Avenue Mobile, Arizona 85239 602/256-0630 FAX 602/256-0639 A Division of Waste Management of Arizona, Inc. Shipment # 96053

V30/3

WMA Profile #

286520

V Diagnosi of Market Internal Server	III OF WITE	U+80, 111C					
1 Work site name and address		306	333		Emergen	cy telepho	жe
9300 RAYO AVE SCUTHGATE CA		DIAL	Z99A		(31	0) 533-	6702
2 Contractor name and address TEG. The Environmental Group 4710 South Bastern Avenue			MMM = 8 g a mpg ng ng ng ng ng ng ng ng ng ng ng ng ng		Contracto	rs teleph	ione no.
City of Commerce, CA 90040	1000***********************************	WWW.000000	*		(21	3) 726-	9696
3a. Owner's name and mailing address THE DIAL CORP.		sposal Sit	e Itation Landfill		Owner's !	elephone	no.
1850 NORTH CENTRAL AVENUE PHEONIX. AZ Attn:MICHAEL CAVANAUGH	40	0404 S. 99 obile, AZ	th Avenue		(60	2) 207-	5760
4a. Address of responsible agency		4b.	Address of respor	sible a	nency		22277777777
Maricope County - Division of Pollution 2406 S. 24th Street Suite E-214 Phoenix, Arizona 85034 602-506		And the second s	ADEQ - Air Quali 3033 N. Central A Phoenix, Arizona	ty, Asb \venue	estos Coo	rdinator 502-207-2	204
			cinciia, accord	1 00U Z	_3 	M~~~~	
Sar Description of materials		6. Contai	ners	7. Tota	al quantity		
		Na.	Туре	Cut	ric Yards	Tons	
Non-Friable Asbestos Only							
Asbestos, 9, NA2212, III	***************************************		CM	35			
8. Special handling instructions: Do not break bags or cause dust, avo	ıld brea	ithing du	st Bury separ	ately a	nd cover	with bac	:kfill.
CONTRACTOR'S / GENERATOR'S CERTIF and accurately described above by proper shipping respects in proper condition for transport by high	FICATION NO PROPERTIES	N: I hereby and are de rding to app	y declare that the co suified, packed, mai dicable international	ntents of ked, and and gov	f this consig liabeled, an emment rep	nment are od are in al gulations.	fully I
Printed/typed name & title 5640 FERGUSON		√D,	Signature			Month/Da	ay/Year
PROSECT MENNAGER	<u> </u>	~)}/~	-derau	シ ヘ	- 0	503	196
10. Transporter 1 (Acknowledgment of receipt of	of materi	ৰ্বাহ)					
PROPERTY PROPERTY PORTER TO BOX 5295	no.		Signature		Į	Month/Da	-
BAKERSFIELD. GA 9338 (805) 589-5220	8	Solar	in Com	ev	0	5108	196
11. Transporter 2 (Acknowledgment of receipt of	f materia	**************************************	The state of the s		pypppccccartifickimmmil.		- Andrews
Printed/typed name & title, address, telephone r	io. [onen- imigaji- impaisi vi	Signature	Miller success and		Month/Da	ry/Year
					anne ann ann ann ann ann ann ann ann ann	1	1
		and the second s			000	···	
12. Discrepancy indication space							
 Weste disposal site Operator: Certification noted in item 12. 	of recei	pt of asbe	stos materials cov	ered by	this manife	est excep	t as
Printed/typed pame & title		ا ا م - ا	Signature			Month/Da	ay/Year
Modans William Milliam			Manie	<u>(</u>		510	196



Butterfield Station Regional Landfill Facility 40404 South 99th Avenue Mobile, Arizona 85239 602/256-0630 FAX 602/256-0639 A Division of Waste Management of Arizona, Inc. Shipment #1 .m. 2 % (...)
T.E.G.

_{4,710,} WMA Profile #

Work site name and address				Emergeno	y telephone
		A96-291A	20.00		
POU RAYO AVE		i) AL		(21	u) 513-676
CA Contractor name and address				Contracto	r's telephone no
1939. The Environmental Group					
1710 South Eastern Avenue				/**	
Ba. Owner's name and mailing address	3b. Dispo	sal Site		Owner's t	elephone no.
TO WALLOTT.		rfield Station Lan	lint		
1849 HORTH CENTRAL AVENUE	•	4 S. 99th Avenue e, AZ 85239			
PHEONIM. Reform Thable Cavanaugh	IVICUII	e, ~2 00203		7.0	31 237 57 6
4a. Address of responsible agency		4b. Address o	responsible a	~~~~	
Maricopa County - Division of Pollutio	n Control		r Quality, Asb	estos Coo	rdinator
2406 S. 24th Street Suite E-214 Phoenix, Arizona 85034 602-5	06-6708	•	entral Avenue Arizona 85012	c	02-207-2301
Filderitz, Alizona 03004 002-3					102-201-2301
5a. Description of materials	6.	Containers		al quantity	<u> </u>
		No. Type	Cut	ic Yards	Tons
Non-Friable Asbestos Only		1,23			
Asbestos, 9, NA2212, III		سے 📗	3	5	
and accurately described above by proper ship respects in proper condition for transport by his	pping name and ghway accordir ——————	i are classified, pacing to applicable inte	mational and go) labeled, ar /emment re-	gulations.
Printed/typed name & title エンドル デモアイ USUN ディンミミィナ かみかんなも	Art and I	⊆ 9gra	ture		Month/Day/Year
TOHO FORGUSON	- L			ر ا	32 01
TOO SECT MAD AND AGE	9(<u>)</u>	<u>~/8/~~~</u>	ハタルア	1	is is ne
O. Transporter 1 (Acknowledgment of receip	nt of materials	1		, .	
Printed/typed name & title, address, telephon	е по	Signa	ture		Month/Day/Year
THE STANGER PREMITTON. THOSE STANGES					
- 194 5445 55555,	3:0 8	7 / 1			
451743945530	1	2001	<u>****</u> 3,5	.€	315 E 1 94
Transporter 2 (Acknowledgment of receip	t of materials	<u> </u>			
Printed/typed name & title, address, telephon	e no.	Signa	iture		Month/Day/Year
Zennis BARTH	1 P P P P P P P P P P P P P P P P P P P	· · · · · · · · · · · · · · · · · · ·			monuncay, .car
		Denuso	W077		
		Jenn S	<i>witt</i>	0	16 106196
		Dennish	160/		
12. Discrepancy indication space		Demos B	1 <i>407</i>		
3. Waste disposal site Operator: Certificati	on of receipt	Demos	rials covered by		16 106196
nated in item 12.	ion of receipt	of asbestos mate			est except as
3. Waste disposal site Operator: Certificati	ion of receipt	Demos			16 106196

SPECIAL WASTE SHIPMENT RECORD



Butterfield Station Regional Landfill Facility 40404 South 99th Avenue Mobile, Arizona 85239 602/256-0630 FAX 602/256-0639

Shipment #

96-055

A Division of Waste Management of Ar	izona, Inc.		4/30/9VMA P	Z865ZU
1. Work site name and address DIAL 9300 RAYO AVE	A96- DIAI	-299A	Eme	rgency telephone (310) 533-6702
2. Contractor name and address			Con	tractor's telephone no.
TEG. The Environmental Group 4710 South Eastern Avenue				-
THE DIAL CORP.	Disposal Sit Butterfield S 40404 S. 98 Mobile, AZ	Station Landfill Ith Avenue	Own	er's telephone no.
4a. Address of responsible agency Maricopa County - Division of Pollution Contro 2406 S. 24th Street Suite E-214 Phoenix, Arizona 85034 602-506-6708		Address of resp ADEQ - Air Qu 3033 N. Centra Phoenix, Arizo	ality, Asbestos I Avenue	
Sa. Description of materials TRANSITS	6. Conta No.	iners Type	7. Total qua Cubic Ya	
Non-Friable Asbestos Only Asbestos, 9, NA2212, III	01	cm	35	
Special handling instructions: Do not break bags or cause dust, avoid br	eathing du	ist. Bury sep:	arately and co	over with backfill.
 CONTRACTOR'S / GENERATOR'S CERTIFICAT and accurately described above by proper shipping name respects in proper condition for transport by highway ac- 	ION: I hereb se and are cli cording to ap	y declare that the essified, packed, n plicable internatio	contents of this on narked, and label nai and government	consignment are fully ed, and are in all ant regulations.
Printed/typed name & title JOHN FERGUSON FROSET MANNER,	复	Signature Les ou	om	Month/Day/Year 05-03 196
10. Transporter 1 (Acknowledgment of receipt of mate	ലമ്യ)			23/26/2016
Printed/typed name & title, address, telephone no. KVS TRANSPORTATION. INC. PO BOX 5295 BAKERSFIELD. (805) 589-5220	Qua	Signature e W. Usos		Month/Day/Year 05 08 96
11. Transporter 2 (Acknowledgment of recaipt of mate	rials)			
Printed/typed name & title, address, telephone no.		Signature		Month/Day/Year
12. Discrepancy indication space				
3. Waste disposal site Operator. Certification of reconoted in item 12.	eptofasbe	stos materials c	overed by this i	nanifest except as
Printed/typed name & title	m	Signature	1.	Month/Day/Year 5 / 9/6

SPECIAL WASTE SHIPMENT RECORD

Butterfield Station Regional Landfill Facility 40404 South 99th Avenue Models, Arizona 85239

Shipment#

96-056

602/256-0630 FAX 602/256-0 A Division of Waste Manageme		L Inc.	Keers	MA Profile	# <u>286520</u>
1. Work site name and address DIAL 9300 RAYO AVE SOUTHGATE CA		A96-Z99A :			y telephone 0) 533-6702
2. Contractor name and address TRG. The Environmental Group 4710 South Fastern Avenue City of Commerce, CA 90040			•		's telephone no.
3a. Owner's name and mailing address THE DIAL CORP. 1850 NORTH CENTRAL AVENUE PHECNIX. AZ ALLD:MICHAEL CAVANAUCH	Butte 4040	osal Site efield Station Landfill 4 S. 99th Avenue le, AZ 85239			Plephone no.
4a. Address of responsible agency Maricopa County - Division of Pollution 2406 S. 24th Street Suite E-214 Phoenix, Arizona 85034 602-506		4b. Address of response ADEQ - Air Qua 3033 N. Central Phoenix, Artzon	lity, Asb Avenue	estos Coor	dinator 02-207-2301
5a. Description of materials TRANSITS	, 6	Containers No. Type		al quantity oic Yards	Tons
Non-Friable Asbestos Only Asbestos, 9, NA2212, III		1 cm		25	
Special handling instructions: Do not break bags or cause dust, ave	oid breath	ing dust. Bury sepa	rately a	nd cover v	vith backfill.
 CONTRACTOR'S / GENERATOR'S CERTI and accurately described above by proper shippi respects in proper condition for transport by high 	ing name and	i are classified, packed, m	arked, ark	i labeled, and	d are in all
Printed/typed name & title De How FEPGUSON Proserry Donninger		2 Signature			Month/Day/Year 50376
10. Transporter 1 (Acknowledgment of receipt	of materials			4	
Printed/typed name & title, address, telephone KVS TRANSPORTATION, INC. PO BOX 5295 BAKERSPIELD. CA 9336 (805) 589-5220		Signature	w		Month/Day/Year
11. Transporter 2 (Acknowledgment of receipt of	of materials				
Printed/typed name & title, address, telephone	no.	Signature			Month/Day/Year
12. Discrepancy indication space			•		•
Waste disposal site Operator: Certification noted in item 12.	of receipt	of asbestos materials co	vered by	this manyle	st except as
Printed/typed name & fitte		Signature		- - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Month/Day/Year



SOLID WASTE SECTION - PROGRAM DEVELOPMENT & RECYCLING UNIT 3033 North Central Phoenix, Arizona 85012

SPECIAL WASTE MANIFEST # 018096

1 Generator's AZID No. EXEMPT-Out of State	2. Emergene Norificant	y Response on Phone Nu	mber 77 5 6 /3	12) 200 00
3. Generator's Name and Mailing Address A96-299A: DIAL DIAL DIAL Generator's Phone Number and Area Code THE DIAL CORP. 1850 NORTH CEN PHEONIX (602) 207-5760	TRAL AVENUS	100 A 100 A 1	EPA ID Number CA Manifest	13) 726-96 :: CAD00829 # 95741520 ofile # 28
4. Transporter 1 Company Name and Mailing Address KVS TRANSPORTATION. INC.		ter's AZID ! ter's Phone }		220
5. Transporter 2 Company Name and Mailing Address	Transpor Transpor	ter's AZ ID ? ter's Phone ?	Vo.	
 Primary Receiving Facility Name and Address (physical six location, if WASTE MANAGEMENT-BUTTERFIELD STATE L 40404 5. 99TH AVE. 		AZIDNo.		
MOBILE AZ 85239		: Phone No.	(602) 256-0	630
7. Alternate Receiving Facility Name and Address (physical size location, if		: AZ ID No.		
U.S. DOT description, (if applicable)(Non-DOT regulated materials entename, physical state and description of all contents of waste).	r shipping Mark X If Haz, Mac.	Conninces No.	Total Quantity	Unix W/Vol
R.Q. ASBESTOS. 9. NA 2212, PG III	-30		35	Y
9 DCK HOT EXPLATOR PASS OF CAUSE DUST A NOTIFIED REFUSE. APPROVED RESPIRATORY EQUIPMENT A	BREATHING DUST.	CLOTHIN	G REQUIRED; ER	
10. GENERATOR'S CERTIFICATION: I hereby declare that the contents	of this consignment are fo		description to soulic	
and are classified, packed, marked, and labeled, and are in all respects governmental regulations.	in proper condition for tra	asport by hig		able interpational
and are classified, packed, marked, and labeled, and are in all respects governmental regulations.		neport by his	NO.	able interpational
and are classified, packed, marked, and labeled, and are in all respects governmental regulations. Printed/Typed Name 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name SHAWN CONNER	in proper condition for tra	export by his	no-	MO DAY
and are classified, packed, marked, and labeled, and are in all respects governmental regulations. Printed/Typed Name 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name SHAWN CONNEL 12. Transporter 2 Acknowledgement of Receipt of Materials	in proper condition for tra	en ey	no-	MO DAY NO DAY NO DAY
and are classified, packed, marked, and labeled, and are in all respects governmental regulations. Printed/Typed Name 11. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name 53 544 WN CONNER 12. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name 53 14. Discrepancy Indication Space	in proper condition for the guarante description of the gu	n g	no-	MO DAY NO DAY NO DAY
and are classified, packed, marked, and labeled, and are in all respects governmental regulations. Printed/Typed Name 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Signature 2 Acknowledgement of Receipt of Materials Printed/Typed Name 13. Discrepancy Indication Space 14. Facility Owner or Operator: Certification of receipt of special waste man	in proper condition for the guarante description of the gu	n g	no-	



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION - COMPLIANCE SECTION 3033 N. Central Ave. Phoenix, Arizona 85012

П	ASBESTOS NESMAP			r's Name and Mailing Ad	dness	
Π	A96-299A: DIAL			DIAL CORP.		
	3300 RAYO AVE SOUTHGATE CA		1850 PHEO	NORTH CENTRAL		
	SOUTHGATE CA			*1A :JOHN FERGUSON	AZ 8500	4 - 1
	186520		Owne	r's Telephone No. (602) 207-5535	
	2. Operator's Name & Mailing Address		3. Waste	: Disposal Site (WDS) Na	me, Address and Physic	
	TEG. The Environmental Group			E MANAGEMENT-B 4 S. 99TH AVE.		TATE LANDFI
	City of Commerce, CA 90040		MOBI			S239
	Operator's Telephone No. (213)726-9696		WDS	Telephone No. (602)	256-0630	
	4a. Asbestos NESHAP Regulatory Agency Name & Address for Work S	lite	4b. Asbes	tos NESHAP Regulatory	Agency for WDS: Nan	e & Address
	Maricopa County-Division of Pollution Co	ntrol		-Air Quality, A		nator
	2406 S. 24th Street, Suite E-214 Phoenix, Arizona 95034 602-506-67	രമ		N. Central Ave		207 2203
Œ	Filteria, Allicona SSOSA SV2-300-07	UG	Fucei		30 60/2	-207-2301
GENERATOR	5. Description of Materials	6. Conti	uners:	Containers:	7. Total Q	uantity Removed
ž		Nun	nber	Туре	ı ai	n ³ (96 ³)
ā	NON-FRIABLE ASBESTOS					
1	Friable Asbestos Material					
7	Nonfriable Asbestos Material -		0/	cm	30/05	
	ia. Special Transportation, Treatment, Storage or Disposal Information	BAC	3 AND T	ARP SECURELY		
	85. Bill of Lading Information					
	Sc. Alternate Waste Disposal Site Information					
	8d. Emergency Response Telephone No. T.E.G. (213	726-	9696			
	 OPERATOR'S CERTIFICATION: I hereby declare that the content and are classified, packed, marked, and labeled, and are in all respect government regulations. 	s of this cor is in proper	usignment ar condition fo	e fully and accurately des or transport by highway a	cribed above by proper cording to applicable is	shipping name stemational and
	NOTE: The waste generator/operator must retain a copy of this form	L s		-1/1	ソログル類	7
	JOHN-FERGUSON MANA	GEZ :	- N	Nother	- 252	MO DAY YE
<u> 1</u>	Printed/Typed Name & Title	TYP2	2 2 Sig	getare / //	100000	4 NX N2 176
	10. Transporter 1 (Acknowledgement of Receipt of Materials) KVS TRANSPORTATION, INC.		31.4	grande britain	same of 3	
	РО Вох 5295					
	Bakersfield CA 93388 (805) 589-5220		1.7	0-11	% Z	
1	Direction appropriate Province (Contraction of Contraction Countries)	e with e	en fil	- C. C. C. C. C. C. C. C. C. C. C. C. C.	Carl Was Gill	MO DAY YE
THANSPORTER	Printed/Typed Name, Title, Address & Telephone No.	o alle og oc	Sig	nature	4.78	D8/7/76
<u> </u>	11. Transporter 2 (Acknowledgement of Receipt of Materials)	. ~		(IP s 1515 ⁶ may), n iq:	waxayinga .	
A H	all role lossification and the of substance a		والتراجع والمراجع	istroč ter - isto (L. ii	THE COMMENS	
£	A second and the seco	gali, sul	* 2 * 55	esti in direction of	e godos su d es	
	on a first superior of the contract of the con	(17. 4 .1)		. V Cra bykr mir w k y red		MO DAY YE
33333333	Printed/Typed Name, Title, Address & Telephone No.		Sig	nature	** 19.4	34 1 1
ر با	12. Discrepancy Indication Space					
7 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5						
STE A		ocial waste	· 1.:			MG: DAY YE



ADECVACIDICS NESHAP 001/_

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

3033 N. Central Ave. Phoenix, Arizona 85012

.	Work Site Name, Address & County	4. *	1b. Owner's Name and Mailing		
	096-054A: DIAL FACTORY 0300 RAYO		THE DIAL CORPORAT 1850 WORTH CENTRA	'ION T AVENITE	
9	SOUTHGATE CA		PHOENIX	AZ 85077	
			Attn: JOHN FERGUSO		
 	Operator's Name & Mailing Address		Owner's Telephone North	2 207-5198 Name, Address and Physical Location	
1	EG. The Environmental Group	•	WASTE MANAGEMENT-	BUTTERFIELD STATE TAM	
	710 S. Bastern Blvd. Litv of Commerce, CA 90040		40404 S. 99TH AVE	•	w
				AZ 85239	
	Operator's Telephone No. 213 726-9696		WDS Telephone No. (60 °)) see hern	
4a.	Asbestos NESHAP Regulatory Agency Name & Address for Work	ine	4b. Asbestos NESHAP Regular	tory Agency for WDS: Name & Address	5
2	Maricopa County-Division of Pollution Con 1406 S. 24th Street, Suite E-214 Phoenix, Arizona 85034 602-506-670		ADEQ-Air Quality, 3033 N. Central Av Phoenix, Arizona		1
5.	Description of Materials	6. Cont	ainers: Containers:	. 7. Total Quantity Remo	oved
		Nur	mber Type	in m³ (yd³)	
N	ON-FRIABLE ASBESTOS		1		
F	riable Asbestos Material				
<u> </u>	Nonfriable Asbestos Material			LID Yd No	
8a.	Special Transportation, Treatment, Storage or Disposal Information	·BAG	AND TARP SECURELY,		
8b.	Bill of Lading Information	0.0). WRWS69	7	
8c.	Alternate Waste Disposal Site Information	7			
8d.	Emergency Response Telephone No. T. E.G. (213)	776_0	EDE		
9.	OPERATOR'S CERTIFICATION: I hereby declare that the content and are classified, packed, marked, and labeled, and are in all respect government regulations.	s of this co	nsignment are fully and accurately	described above by proper shipping nar y according to applicable international a	ne und
	NOTE: The waste generator/operator must retain a copy of this form	G.	56 57×464-		
	Printed/Typed Name & Title	555			
********	Transporter I (Acknowledgement of Receipt of Materials):		7,000		
Ţ	HE ENVIRONMENTAL GROUP. 710 S. Bastern Ave.			and the second second	
C	ity of Commerce CA 90040		a disc	card) carrier survivoresco	
	213) 726-9696 .ur.lo.::		in physical property	E SERVICE SERVICE	DAY-
	Printed(I) pert Name, Tale, Address & Telephone No. 19 at 1991.		ere a supplementation and	A STATE OF THE PARTY OF THE PAR	
	Transporter 2 (Action wedgement of Receipt of Materials)			entique d'adectique	
K	VS TRANSPORTATION THE SECRET SECRET OF BOX 5295 CO. SECRET SECRET OF SECRET SEC		geral in participation in	an et transporter et al. 10	
1.23					#
	1995) <u>599 (5220 Is as poer financies a linear callit</u> train 2 Printed/Typed Name, Tale, Address & Telephone No. (1995)	GP #T	arot parta e principale de la . El comme		מיינל
************	Discrepancy Indication Space		24 A Silvania		<u> </u>
		_		(4) · · · · · · · · · · · · · · · · · · ·	55 6
<u> </u>	Waste Dirional Site Disher of Specials Certification of receipt of se	<u> 44</u>	respectively.	4444	
		SECULIARISM SECURIORISM			
7 13	materials covered by the manifest extent at lasted in Bellin,			A SECURITY OF THE SECURITY OF	

TRANSPORTER 1: RETAIN THIS COPY SHOWING RECEIPT BY WOS OR OTHER

· 8700--22

UNIFORM HAZARDOUS			***************************************			
WASTE MANIFEST	1. Generator's US EPA ID No.		I. I.	2. Page 1	is not requ	m in the shaded area wred by Federal law
Generator's Name and Making Address	AJA-067A: 10880 WT			Academic Designation (Control of Control of	New C	960629
AAN PROGERTY CORPORATI	CN LOS AMUELES.	CN 90021			10 J	,vv0 <u>C</u> 3
Conscional Phone (19 (234-550)	770					
Transporter 1 Company Home	& US (9 × 10) →	nber				i e e
TRANSPORTATION, INC.	[C]A]D]9]8	<u> 2 4 7 5 5 5 3</u> nber		2.00	11.7589	-522076239
Transporter 2 Company Name	E IZ BY D in	nber		Terrespondent (C)	K.C.CFC	
Designated Facility Name and Site Address	st T		Residence of the second	Carlo Park Parky Dagge	***	
LIFORNIA ABBESTOS PANA	\	•		SAISIOION		
MANGE PRAIT XUAD Francisco (II)	95230 ICIAILIOIN	010121 17141	IC foods	V & Phone (2023)	wa je	
US DOT Description (including Proper Ship		12. Cor	Proinces	13. Total	14, Unit	1000000
		' No.	Type	Quantity	wi\A9	Works Sunsber
). Assestos, 9, ha 2212,	, e ii,	4,2,0	مد. بر	0.00		PA/Object of the
•		1/1/2	l CIF	91016/18		Section 1
? K + H5 BESTLS, 9,	4/H 2712. HE 111		I.,		4	
£	<u> </u>	<u> </u>	PM	FIFER	7	200
				0.000		EPA/Other
•						Secretary 200
						EPA/Colego
Contornal Descriptions for Manusch Laboral 1888 - San San San San San San San San San San				lang Cudas for Wood Services	used Al	
						(V.)
100	terit selection in 45					
						* * * * * * * * * * * * * * * * * * * *
•					**; ::	**************************************
ing argāk bads or cal 9115. premovēc keje(r)	ASE TAUST, AUGUS BREN NTORY FO <mark>utphe</mark> at and	FACTECTE / 5 (L)/	THIM;	ai.Hirei		
irt brsäk kade or tal 1973: Approved Heiderb	ASE TAUST, AUGUS BREN NTORY FO <mark>utphe</mark> at and	FACTECTE / 5 (L)/		ai.Hirei		
THE SPEAK BASS OR CAL STORE APPROVED HESPERI COST OF MARKSTAMY: T	ISE TOUT, AJOID BREAMING FOR SELECT AND BREAMING FOR SELECT AND BREAMING TO SELECT AND BREAMING THIS consign of this consign of this consign of this consign.	PROTECTI / E (LL)	y describe	d above by proper s	hipping na	
FIGUREAL NAMES OF CALESTON ASSESSMENT OF SHOULD HESP (P) GENERATOR'S CERTIFICATION: I hereb packed, marked, and labeled, and are in If I am a large quantity generator, I cert	JSE OUST. ASOLD BREA ATORY FOUTPMENT ASSO 8.6. 2115 70 m. 9466 by declare that the contents of this consign all respects in proper condition for transp tify that I have a program in place to t	PROTECTS /E Lu/ ment are fully and accurate out by highway according to educe the volume and taxic	y describe applicable	d above by proper se international and r	dipping na rational go degree !!	remment regulations. have determined to I
GENERATOR'S CERTIFICATION: I hereb pocked, marked, and labeled, and are in economically practicable and that I have threat to human health and the environment.	FIG. 1997. AVOID BREAKTORY FOUT/MENT AND TO A SASA or declare that the contents of this consign all respects in proper condition for transpitity that I have a program in place to a selected the practicable method of treatment, OR, if I am a small quantity general	ment are fully and occurate or by highway according to selve the volume and tasks need, storage, or disposal of	y describe I applicabl By all was urrently an	d above by proper re-inventional and r	hipping na national go degree I I minimizes	renment regulations. have determined to little the present and lutu
GENERATOR'S CERTIFICATION: I hereby packed, marked, and labeled, and are in if I am a large quantity generator. I cert economically practicable and that I have threat to human health and the environment management method that is availabited/Typed Name	ATORY FOUTPMENT AND SERVATORY FOUTPMENT AND AND SERVATORY FOUTPMENT AND SERVATORY FOUTPMENT AND SERVATOR SERVAT	ment are fully and occurate or by highway according to selve the volume and tasks need, storage, or disposal of	y describe I applicabl By all was urrently an	d above by proper re-inventional and r	hipping na national go degree I I minimizes	remment regulations. have determined to life present and futu- ion and select the be
GENERATOR'S CERTIFICATION: I hereb packed, marked, and labeled, and are in If I am a large quantity generator. I can occurrently procedure to human health and the environm waste management method that is available med/Typed Name GEORGE V. CAF	TORY FOUT AND BREAK TORY FOUT PMENT AND BLOCK TORY FOUT PMENT AND BLOCK TORY declars that the contents of this coming all respects in proper condition for transposit respects in proper condition for transposit respects in process and programme in place to selected the practicalist method of transposit OR, if I are a small quantity generals to me and that I can afford. Signature	ment are fully and occurate or by highway according to selve the volume and tasks need, storage, or disposal of	y describe I applicabl By all was urrently an	d above by proper re-inventional and r	hipping na lational gar degree I I minimizes the general	remment regulations. have determined to life present and futu- tion and select the be
GENERATOR'S CERTIFICATION: I hereb pocked, marked, and labeled, and are in occurrently practicable and that I have threat to human health and the environments management method that is available med/Typed Name GEORGE V. CAF Transporter I Acknowledgement of Receipmed/Typed Name	TORY FOUTUMENT AND TORY FOUTUMENT AND TORY FOUTUMENT AND TORY FOUTUMENT AND TORY FOUTUMENT AND THE COMMENT AND	ment are fully and occurate or by highway according to selve the volume and tasks need, storage, or disposal of	y describe opplicabl ity of was urrently on oith effort	d above by proper to a interruptional and re- the generated to the callable to me which to minimize my was	hipping nai lational gar degree I I minimizes the general	remment regulations. have determined to the present and future and select the bearing to the bearing the bearing to the bearing the bearin
GENERATOR'S CERTIFICATION: I hereb packed, marked, and labeled, and are in If I am a large quantity generator. I cert economically practicable and that I have threat to human health and the environm waste management method that is available med/Typed Name GEORGE V. CAP Transporter I Acknowledgement of Receipmed/Typed Name [] [] [] [] [] [] [] [] [] [] [] [] [] [TORY FOUT AND BREAKTORY FOUT MEDIT AND BLOCK STORY FOUT MEDIT AND BLOCK STORY FOUT MEDIT AND STORY STORY FOUT MEDIT AND STORY	ment are fully and occurate or by highway according to selves the volume and tasis need, storage, or disposal of	y describe I applicabl By all was urrently an	d above by proper to a interruptional and re- the generated to the callable to me which to minimize my was	hipping nai lational gar degree I I minimizes the general	remment regulations. have determined to the present and futu- tion and select the be- nith Day
GENERATOR'S CERTIFICATION: I hereb packed, marked, and labeled, and are in If I am a large quantity generator. I can occurrently practicable and that I have threat to human health and the environm waste management method that is available med/Typed Name GEORGE V. CAF Transporter J Acknowledgement of Receipmed/Typed Name Transporter 2 Acknowledgement of Receipmed/Typed Name	TORY FOUT AND BREAKTORY FOUT MEDIT AND BLOCK STORY FOUT MEDIT AND BLOCK STORY FOUT MEDIT AND STORY STORY FOUT MEDIT AND STORY	ment are fully and occurate or by highway according to selves the volume and tasis need, storage, or disposal of	y describe opplicabl ity of was urrently on oith effort	d above by proper to a interruptional and re- the generated to the callable to me which to minimize my was	hipping nai lational gar degree I I minimizes the general	reminent regulations. have determined to liftle present and furtions and select the beath of the
GENERATOR'S CERTIFICATION: I hereb packed, marked, and labeled, and are in If I am a large quantity generator. I carl economically practicable and that I have threat to human health and the environment management method that is available inted/Typed Name GEORGE V. CAS Transporter I Acknowledgement of Receipting of Typed Name Transporter 2 Acknowledgement of Receipting of Typed Name	TORY FOUT AVOID BREAKTORY FOUT MEDIT AND E.G. 211 77 x 9-56 by declars that the contents of this consign oil respects in proper condition for transposit respects in proper condition for transposit of the practicable method of treatment CR, if I am a small quantity generalie to me and that I can afford. Signature TOR Materials Signature	ment are fully and occurate or by highway according to selves the volume and tasis need, storage, or disposal of	y describe opplicabl ity of was urrently on oith effort	d above by proper to a interruptional and re- the generated to the callable to me which to minimize my was	hipping national gardinates the general Man	remment regulations. have determined to the present and futu- tion and select the be- nith Day
GENERATOR'S CERTIFICATION: I hereb packed, marked, and labeled, and are in If I am a large quantity generator. I carl economically practicable and that I have threat to human health and the environment management method that is available inted/Typed Name GEORGE V. CAS Transporter I Acknowledgement of Receipting of Typed Name Transporter 2 Acknowledgement of Receipting of Typed Name	TORY FOUT AVOID BREAKTORY FOUT MEDIT AND E.G. 211 77 x 9-56 by declars that the contents of this consign oil respects in proper condition for transposit respects in proper condition for transposit of the practicable method of treatment CR, if I am a small quantity generalie to me and that I can afford. Signature TOR Materials Signature	ment are fully and occurate or by highway according to selves the volume and tasis need, storage, or disposal of	y describe opplicabl ity of was urrently on oith effort	d above by proper to a interruptional and re- the generated to the callable to me which to minimize my was	hipping national gardinates the general Man	remment regulations. have determined to the present and futu- tion and select the be- nith Day
If I am a large quantity generator, I consciously practicable and that I have threat to human health and the environment waste management method that is available. GEORGE V. CAI Transporter I Acknowledgement of Receiptives (Typed Name 1/2/2/1/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/	TORY FOUT MENT AND B.G. 2111 To 9-3-5 by declars that the contents of this consign oil respects in proper condition for transposity that I have a program in place to selected the prociscoble method of treatment, OR, if I am a small quantity generalize to me and that I can afford. Signature T of Materials Signature T of Materials Signature Signature	ment are fully and occurated out by highway according to educe the volume and taxis term, storage, or disposal a tor, I have made a good fi	P111247 A 1112 y describe r applicabl ity of was urrently on cith effort	d above by proper seinternational and resident to the callebia to me which to minimize my was	hipping national gardinates the general Man	remment regulations. have determined to the present and futu- tion and select the be- nith Day
GENERATOR'S CERTIFICATION: I hereb packed, marked, and labeled, and are in If I om a large quantity generator, I cert economically procisable and that I have threat to human health and the environment management method that is available inted/Typed Name GEORGE V. CAS Transporter I Acknowledgement of Receiptimed/Typed Name Transporter 2 Acknowledgement of Receiptimed/Typed Name	TORY FOUT MENT AND B.G. 2111 To 9-3-5 by declars that the contents of this consign oil respects in proper condition for transposity that I have a program in place to selected the prociscoble method of treatment, OR, if I am a small quantity generalize to me and that I can afford. Signature T of Materials Signature T of Materials Signature Signature	ment are fully and occurated out by highway according to educe the volume and taxis term, storage, or disposal a tor, I have made a good fi	P111247 A 1112 y describe r applicabl ity of was urrently on cith effort	d above by proper seinternational and resident to the callebia to me which to minimize my was	hipping national gardinates the general Man	remment regulations. have determined to the present and futu- ion and select the be- inth Day inth

852

₹

U Z

, Ğ

UNIFORM HAZARDOUS 1. Generator's US EP		lest Document No.	2. Page 1	information in the shaded areas is not required by Federal law.	
Lance Control of the	<u> 1 1 1 1 5 1 6 6 </u> 10090 WILSHIPR		Vacantinal Comment	Contract Con	-
(0880) PROPERTY CORPORATION	inom attories			360629	Ħ
TOOMS MITTARIAE ADVIN: TOR MACKE		B. Stone	manus (D		
e. Generaliza i ricine ()	/: TRTMERIEGS			<u> 6월 1</u> 4 1의 약공	
5. Transporter 1 Company Norte 6.	US EPA ID Number	C Some			
KYK TRANSPORTATION, INC.	ALFI DERIGIAL OF S	C Drawn		E389-5220 / SS	
7, Transperter 2 Company Name 8.	A F 3 8 3 4 9 5 US EPA ID Number				
	111111	I I I Fallows	and the same of		
9. Designated Facility Noise and Site Address 10.	US EPA ID Number				
CALIFORNIA ASSESTED HONOFIL				PREFIT	
O'STANES FERRY AND CA 98224 LCI	यमण्णणणा अ	H. Facility I Till I L. S. S. S.	Personal Control	iEBSZ-4001 S	
		12. Continuers	13. Total	IA Una Transport	
11. US DOT Description (including Proper Shipping Name, Hazard Clas	s, and ID Permber)	No. Type	Quantity	W/Vol L Wome Number 3	
R.Q. ASBESTOS, 9, NA 2212, PG II				第15 16数	K
n.y. Addition, s, an alan, for all		SUPLIF	00066	PA/ON-PA	ø
•				34.70.72	ø
			- a - 1 - 7	PA/Other THE	
K. G. May 100 17 17 18 12 21 4 7 5	77 11	1166 B 15	CCUIII		
				State .	
			1	EPA/Oner	
				Store	
				500 CM	*
				EPA/Cither	
Additional Descriptions for Meanwall Description (Allies		E Hondi	ng Codes for Wase	s based Above	
the second second second second second				キャクケー・	
				d	7/5
15. Special Handling Instructions and Additional Information Local Conference Biology Control Control AA	DIE BARNINGEN D	NGT. BURG SE	FARATEL ()	.	
FORMULE APPROVED REJUIRATORY EQUIPME	with the Petition:				
A PASS OF BREIGHTY: C.S.O. (211)	" **-9*/*	9.1,	46		
16. GENERATOR'S CERTIFICATION: I hereby declare that the content	s of this consignment are fully a	nd accurately described	above by proper sh	ipping name and are classified,	
pocked, marked, and labeled, and are in all respects in proper con-					
If I am a large quantity generator, I certify that I have a program					
economically practicable and that I have selected the practicable in threat to human health and the environment; CR, if I am a small					
waste management method that is available to me and that I can at Printed/Typed Name	fford. Signature /			Month Day Ye	ear,
GEORGE V. CAREY	/ / / /			1/1 1:1213	6
17. Transporter 1 Acknowledgement of Receipt of Materials	T=:				
Printed (Typed Name Un (210 Bn) 2/157/1	Signature				ear K
18. Transporter 2 Acknowledgement of Receipt of Materials	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		*		1
Printed/Typed Home	Signature			Month Day Y	ear
19. Discrepancy Indication Space	<u> </u>				1_

20. Focility Owner or Operator Certification of receipt of hazardous mo	Senature /	except as noted in Item	1 19.	Moreh Day Ye	
CCIFTON S. HTMEN	166470	5-775	7.42	1. 6 12 6 1/	/ -
	OT WODE BEIOW TO	- , , , , , , , ,			_L::

30.5

7

ź

7 111

+ 007

CASE OF EMERGENCY OR STILL, CALL WITE PASSOCIAL WOOTHLE WHITE.

Z

1. Additional Descriptions for Mathematic Literal Above 1. Additional Descriptions for Mathematic Literal Above 1. Additional Descriptions for Mathematic Literal Above 1. Additional Descriptions for Mathematic Literal Above 1. Additional Descriptions for Mathematic Literal Above 1. Additional Descriptions for Mathematic Literal Property of the Control of the	UNIFORM HAZARDOUS WASTE MANIFEST		merena arkinine. Tototatzinininin	maro meterni 10 c s n n			Page 1	- A-04 A	
A Committed Place (17 207 9198 ACTIVE JOHN FERRISON STA 1722 AS 18 18 18 18 18 18 18 18 18 18 18 18 18	THE STAL CORPORATION	• 596-09	74A: DIAL PACTY	Sky	7.76 3.85		C Deserves	er Nombre	960F
3. James of Control Form 1 (Supply Florid Supply 1850 NORTH CENTRAL AVE	NUE: PHOI			E 5-					
The GENTLEY NORMATCH, CERTIFICATION AND ADDRESS OF STREET OF STREET STREET OF STREET S	J. Transporter I Company Home		e. US EPA IO reymbe	r	C. 344	Paragra	W.D		7.0
FIX ENVIRONMENTAL, SERVICES IN To be greened fractive frame and Bin Auders 10, US BIN A Debuths 10, US BIN A Debuths 10, US BIN A Debuths 10, US BIN A Debuths 11, US DOT Description flowlyding Frager Shipping Name. Housed Class and ID Number 12, Comment 13, India 14, India 14, India 15, India		ř	1" [A] [-] * [7] * [-]	<u> </u>	O. Tage	Commercial Commercial	7.2	(3) : ₹2	0-9696
10. US DA ID Number 10. US DA ID Number 10. US DA ID Number 10. US DA ID Number 10. US DA ID Number 10. US DA ID Number 10. US DA ID Number 11. US DOT Description (serbriding Proper Shipping Name, Named Case, and ID Number) 11. US DOT Description (serbriding Proper Shipping Name, Named Case, and ID Number) 11. US DOT Description (serbriding Proper Shipping Name, Named Case, and ID Number) 11. US DOT DESCRIPTION (STATE LIQUID (ALKENE DILS, NOTE) 12. Applicated Descriptions for Manyolik Cased Above. 13. Seed of Hooding named to see Assembly Manyolik Cased Above. 14. Applicated Descriptions for Manyolik Cased Above. 15. Seed of Hooding named to see Assembly Manyolik Cased Above. 16. Seed of Hooding named to see Assembly Manyolik Cased Above. 17. Applicated Descriptions for Manyolik Cased Above. 18. Seed of Hooding named to see Assembly Manyolik Cased Above. 19. Applicated Descriptions for Manyolik Cased Above. 19. Ap		I CLE IN		41410171614	F Trans			**************************************	-494
IN CASE OF ENERGENCY PHONE (213) 720–9696 & CALL STI. 16. GENERAL DESCRIPTION (STEPPED APPROPRIATE PROTECTIVE GEAR WHEN HANDLING HASTE. 17. CASK OF ENERGENCY PHONE (213) 720–9696 & CALL STI. 18. GENERAL CONTRIBUTION of the proper bigging times and or of regarding times and or of general phone contribution and the protection for proper bigging times and or of general phone contribution and phone contribution and analysis of the proper bigging times and or of general phone contribution and contribution and contribution an	Designated Facility Home and Site Addr REPLECARE		10. US 87A 10 Name	111313151113	G. Sa.		10	144 T. 18	***************************************
G. ACPHANNERS WASTE LIQUID (ALIKENE OILS, WATER) B. DIN OD 5 D O G. STATESTANDED WASTE LIQUID (ALIKENE OILS, WATER) A. ACPHANNERS OIL SELECTION SELECTION OF THE SELECTION OF		A 40222	[C]A[T]0[8]0]	01110101512	H. Foods	Y! //	7	di Sa	
ION-ACRA HAZARDOUS WASTE LIQUID (ALKENE OILS, WATER) A. Additional Descriptions for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Additional Description for Methylob (Steel Above 1) A. Addition	11, US DOT Description (Including Proper Si	hipping Plane, H		12. Co	Tokarı.				
A Additional Descriptions for Majoriph Good Above 1A Additional Descriptions for Majoriph Good Above 1A ALIKENS O'L 52. STATER 558 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions and Additional Information 15. Spidel Intelling inserptions in the Intelling Additional Information 16. Spidel Intelling inserption in the Intelling Additional Information Info		ricain (ALKENE OILS,						722
6. 2. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 1. Additional Description for Materials Land Above 2. Additional Description for Materials Land Above 2. Additional Description for Materials Land Above 2. Additional Description for Materials Land Above 2. Additional Description for Materials Land Above 2. Additional Description Land Above 2. Additional Description Land Above 2. Additional Description Land Above 2. Additional Description Land Above 2. Additional Description Land Above 2. Additional Description Land Above 3. Additional Description Land Above 3. Special Household Description Land Above 3. Additional Description Land Above 3				0110	DIM	00 :	00	G	Salar Benegati
I. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Good Above J. Additional Descriptions for Materials Information J. Additional Descriptions for Materials J. Additional Description for Materials J. Additional Description for Materials for Materials for Materials for Materials for Materials for Mat							1 1		7-73-2
Additional Descriptions for Materials Canal Above 1.A. Additional Descriptions for Materials Canal Above 1.A. AZEKOND OIL SE SPATER 958 1.S. Special Honding Inversations and Additional Information 1.S. Special Honding Inversations and Additional Information 1.S. APPROVED APPROPRIATE PROFESTIVE GEAR WHEN HANDLING WASTE. 1.N. CASIN OF SMERGENCY PHONE (213) 729-9696 & CALL 911. 1.6. GENERATOR'S CEXTRECATION. I havely ductors that the consum of this consumers are fully and accurately described above by proper hipping them and are of possed, marked, and located, and one to all respects to proper condition for inversace by Epilophy according to applicable attenuately government reput 1.F. on a large quantity generator. I canally four I have a proper condition for inversace by Epilophy according to applicable attenuately government reput 2.F. on a large quantity generator. I canally four I have a proper condition for inversace by Epilophy according to applicable attenuately government reput 2.F. on a large quantity generator. I canally four I have a proper condition for inversace and a special committee of the property of the property of inversace and a property of inversace and the property of the property of inversace and inversace and a good faith effort to invinitize the present of the property of inversace and a good faith effort to invinitize the present of the property of inversace and a property of inversace and the property of inversace and the property of inversace and the property of inversace and inversace and a good faith effort to invinitize the present of the property of inversace and inversace and a good faith effort to invinitize the present of the property of inversace and the property of inversace and the property of inversace and the property of inversace and the property of inversace and inversace and the property of inversace and inversace and inversace and inversace and inversace and inversace and inversace and inversace and inversace and inversace and inversace and inversace and inver									7.2
J. Additional Descriptions for Midigitals Gened Above 1.1. "ACKENE OIL SE FRATER 95" 1.1. "A						1 1	1 1		PACHA
15. Speedol Hondling Instructions and Additional Information 15. Speedol Hondling Instructions and Additional Information 15. Speedol Hondling Instructions and Additional Information 15. APPROVED APPROPRIATE PROTECTIVE GEAR WHEN HANDLING WASTE. 16. GENERATOR'S CERTIFICATION: I hereby ductors that the consume of this consumers are fully and accurately described above by proper shipping name and are at an expectation, marked, and detailed, and one at all respect condition for immaged by highway according to applicable retermitied above by proper shipping name and are at all respectable for the substantial and the entrancement, of this consume, average, or disposal currently available to the which substantial and the entrancement of the degree i have described these to human health and the entrancement of the degree i have described successfully appropriately and accurately and accurately and accurately are applicable to the which advantage appropriate and selection									
15. Speedol Hondling Instructions and Additional Information 15. Speedol Hondling Instructions and Additional Information 15. Speedol Hondling Instructions and Additional Information 15. APPROVED APPROPRIATE PROTECTIVE GEAR WHEN HANDLING WASTE. 16. GENERATOR'S CERTIFICATION: I hereby ductors that the consume of this consumers are fully and accurately described above by proper shipping name and are at an expectation, marked, and detailed, and one at all respect condition for immaged by highway according to applicable retermitied above by proper shipping name and are at all respectable for the substantial and the entrancement, of this consume, average, or disposal currently available to the which substantial and the entrancement of the degree i have described these to human health and the entrancement of the degree i have described successfully appropriately and accurately and accurately and accurately are applicable to the which advantage appropriate and selection					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			•	
15. Special Hondling individual and Additional Information U.I. APPROVED APPROPRIATE PROTECTIVE GEAR WHEN HANDLING WASTE. IN CASK OF EMERGENICY PHONE (213) 770–9696 & CALL S11. 16. GENERATOR'S CETTIFICATION: I havely decrare that the common of this consignment are halfy and accurately described above by proper thipping name and are to pucked, mentioned, and telephold, and are to different in proper condition for framework to highway according to applicable and connected government required in the large proper condition for framework to highway according to applicable and connected government required in the desired of the connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired and connected government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government or the desired government go					1	i	11		177 250
18. Special Handling Instructions and Additional Information U.S. APPROVED APPROPRIATE PROTECTIVE GEAR WHEN HANDLING WASTE. IN CASK OF EMBRGENCY PHONE (213) 725-9696 & CALL 911. 16. GENERATOR'S CERTIFICATION: I harely doctors that the consume of this generalized are purple of the process of the consumer are fully and accountely described above by proper shipping more and are of processed, another, and legand, and are to all respects in proper condition for immension by highway according to applicable interruging grant more required by a first process of the process o									***
18. Special Handling Instructions and Additional Information U.S. APPROVED APPROPRIATE PROTECTIVE GEAR WHEN HANDLING WASTE. IN CASK OF EMBRGENCY PHONE (213) 725-9696 & CALL 911. 16. GENERATOR'S CERTIFICATION: I harely doctors that the consume of this generalized are purple of the process of the consumer are fully and accountely described above by proper shipping more and are of processed, another, and legand, and are to all respects in proper condition for immension by highway according to applicable interruging grant more required by a first process of the process o									
Princed Typed Name 17. Transparer 1 Ackerwisedgement of Receipt of Materials Princed Typed Plane 18. Transparer 2 Ackerwisedgement at Receipt of Materials Petrond/Typed Name 19. Transparer 2 Ackerwisedgement at Receipt of Materials Petrond/Typed Name 19. Transparer 1 Ackerwisedgement at Receipt of Materials 19. Transparer 1 Ackerwisedgement at Receipt of Materials 19. Transparer 1 Ackerwisedgement at Receipt of Materials 19. Transparer 1 Ackerwisedgement at Receipt of Materials 19. Transparer 1 Ackerwisedgement at Receipt of Materials 19. Transparer 1 Ackerwisedgement at Receipt of Materials 19. Transparer 2 A	1A. AJJKENE OIL 54 SAT	ER 96)	TIVE GRAD MUST		*****	61	"3.		
17. Transporter 1 Acknowledgement of Receipt of Automate Printed/Typed Patric TLT Patry MAND 18. Transporter 2 Actnowledgement of Receipt of Automate Printed/Typed House Printed/Typed House 19. Discrepancy Indication Space 19. Discrepancy Indication Space 10. Pacific Owner or Operator Continuous of carryt of humandour moments chanced by this separator accord or noted in time 17.	13. Special Handling instructions and Addition 13. Special Handling instructions and Addition 13. APPROVED APPROPRIAT 13. CASK OF EMERGENCY PH 16. GENERATOR'S CERTIFICATION: I have pocked, marked, and lettered, and one in If I am a large quantity generator, I am concernable provides and free I have	ER 95) 2 PROTEC ONE (213) by discours that if yell respects in pro-	720-9696 & CA	HANDLING WAS LL 911. The tuby and according to the uptures and toxical	Onerbed Opproble	above by	proper, ti	h. d. d. d. d. d. d. d. d. d. d. d. d. d.	es and are cla
18. Transports 2 Action/Agingment of Ryange of Automatics Principal/Typind Name T. J. G. M. R. C. O. S. G. M. D. Z. Z. G. Market G. G. G. G. G. G. G. G. G. G. G. G. G.	13. Special Handling Instructions and Addition 13. Special Handling Instructions and Addition 13. APPROVED APPROPRIATION APPROVED APPROPRIATION CASE OF EMBRGANCY PH 16. GENERATOR'S CERTIFICATION: I here pocked, marked, and lettered, and are in If I am a large quantity generator; I am support to be a provided and from I have threat to hydron health and the environm prosts management eached that is a realist Printed/Typed Name	ER 95) 2 PROTEC ONE (213) by discours that if yell respects in pro-	720-9696 & CA	HANDLING WAS LL 911. The tuby and according to the uptures and toxical	TE.	above by revengile garanth lable 10: a minimize	proper si application of to the se which	h. d. d. d. d. d. d. d. d. d. d. d. d. d.	e and are cla comment require are deservable as and select
TI J. G. M. B. C. G. S. G. M. D. Z. G. G. G. G. G. G. G. G. G. G. G. G. G.	13. Special Handling Instrustions and Addition 13. Special Handling Instrustions and Addition 13. APPROVED APPROPRIATION CASE OF EMBRGENCY PR 16. GENERATOR'S CERTIFICATION: I have pocked, marked, and lettered, and are in If I can a large quantity generator, I can exuramentally providedly generator, I can exuramentally providedly generator, I can exuramentally providedly generator, I can exuramentally providedly generator. I can exuramentally providedly generator is environmentally between the provided Printed Typed Name. 17. Transporter I Acknowledgement of Received.	ER 95) 1 2 PROTEC (ONE (213) by disclore that if 1 st respects in pr wife respects in pr wife to me and the	720-9696 & CA	HANDLING WAS LL 911. The tuby and according to the uptures and toxical	TE.	above by revengile garanth lable 10: a minimize	proper si application of to the se which	h. d. d. hipports non concern gen- depres I h e generati	a and are co
19. Discreptorcy Indication Space 20. Pacific Corner or Operator Continuous of county of humaniform monants absented by this populate cases; or rappel in fine 19.	13. Special Handling Instrustions and Addition 13. Special Handling Instrustions and Addition 13. APPROVED APPROPRIAT 13. CASK OF EMERGENCY PH 16. GENERATOR'S CERTIFICATION: I have pocked, marked, and leftered, and are in 16. I am a large quantity generator, I can economically provincible stid from a horse threat to hyperin health good that is available Printed/Typed Name 17. Transporter I Adjugated/printed of Record Printed/Typed Name 18. Applications 19. Transporter I Adjugated/printed of Record	ER 95) 1 And information E PROTECTIONE (213) by disclorer than in pro- subschool the pr	720-9696 & CA	HANDLING WAS LL 911. The tuby and according to the uptures and toxical	TE.	above by revengile garanth lable 10: a minimize	proper si application of to the se which	h. d. hipping nem canonal government generation in the canonal government generation in the canonal government in the ca	as and are classification regular desiration regula
	13. Special Honding Instrustions and Addition 13. Special Honding Instrustions and Addition 13. APPROVED APPROPRIAT 19. CASK OF EMBRGENCY PH 16. GENERATOR'S CERTIFICATION: I here pocked, marked, and lethered, and one in If I are a large quantity generator; I are scarcomically practicable and the environe posts management steelhed that is evalual Princed/Typed Name 17. Transporter I Adaptive degenerator of Receive Princed/Typed Plans 24. Augustic Steely August 18. Transporter 2 Adaptive degenerator of Receive Princed/Typed Name	ER 95) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	720–9696 & CA. consum of this consequence is oper condition for transport by a propriet in place to reduce the strategy of transport by a small queuity generate. 3 small queuity generate. 3 small queuity generate. 4 small queuity generate. 5 spranse Can other	HANDLING WAS Lit. 911. The halfy and accountry highway occording to the values and toxical through a good for hard made a good for	STE.	observé by novemplité common double son a minimités	proper si application of to the se which	hipping name and a second control of the sec	and are classification of selec
Topolin (block) Yun /10/2/8	13. Special Heroling insensitions and Addition 13. Special Heroling insensitions and Addition 13. APPROVED APPROPRIAT 19. CASK OF EMERGENCY PH 16. GENERATOR'S CERTIFICATION: I have pucked, marked, and lethered, and are in 19 I am a large quantity generator. I as accommissably provinciple said from I have there is hymon health and the environ prote management shealth said that is evalual Printed/Typed Name 17. Transporter I Acknowledgement of Receive Printed/Typed Name 18. Transporter 2 Acknowledgement of Rysing Printed/Typed Name 19. Transporter 2 Acknowledgement of Rysing Printed/Typed Name	ER 95) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	720–9696 & CA. consum of this consequence is oper condition for transport by a propriet in place to reduce the strategy of transport by a small queuity generate. 3 small queuity generate. 3 small queuity generate. 4 small queuity generate. 5 spranse Can other	HANDLING WAS Lit. 911. The halfy and accountry highway occording to the values and toxical through a good for hard made a good for	STE.	observé by novemplité common double son a minimités	proper si application of to the se which	hipping name and a second control of the sec	and are classification of selec

		- 27/55		
311 33 64				
718-05A				
A Guerra				
S Same				
7 2 3 1 10 10 2 2 3 3 1	AND BOOK SOFTER	A STATE OF THE STA		
F WELL	¹⁸ jahan merejakan			
	And Company of the State of the	1198		
8540			The state of the s	
E 1535			iks tust. Suny Sepanara	
			arcaiás croaning hegii	RED, RRG-31.
				286520 sc.
			er tally and according to explicit stages by a highway according to explicable internations of the stage of t	and national government reproduce.
			donija, of deposed currently evaluable to	to the chapter I have described to be which interested the propert and follow- by wages generation and sales the best
				Jan Day Com
			Te source	<u> </u>
	在我是"两方"。		in Corner	海 65 100 196
				Morels Day Year
			rent de la	
		7774		50 100 Year
		CASIDO NOT WRITE BE		1033631
		Table 1	(Generators who salemit legaridous w	age for monoport out-of-state,
445			produce completed copy of this copy	and send to DTSC within 30 days.)

ASTE MANIFEST	1,1,1,1,1,1,1,1,1	, , , ,	or required by Federal Law.
MIN DIAL CORP. 1850 NORTH CENTRAL AVENUE: PHEONIX. AZ			953016
4 days (602) 207-5760 Attn:MICHAEL CAVANA	LIGH 3		
	William Control		
CVS TRANSPORTATION, THE, GAD 9824 7. Transporter 2 Company Name 8. US BPA ID Number	19360 SEE		22.7
		pertor's Places	
9. Designand focially name and Site Address 10. US SPA ID Member IASTE MANAGEMENT-BUTTERFIELD STATE LA			
0404 S. 99TH AVE. ROBILE. A 85239 A A D 4 B 3 4	H. Fadi	Parent.	
US DOT Description (including Proper Shipping Name, Hazard Com, and 40 Number)	12 Compiners No. Type	13. Teres 14.	
			72.00 E
.Q. ASBESTOS, 9, NA 2212, PG III	DOU CIM	1 35	2628
			33600
		1111	144
4	1111		
			25 Sept 200
Additional Discriptions for Materials Listed Above	E Reed	ing Codes for Waster Li	
			100
NOT BREAK BAGS OR CAUSE DUST. AVOID BREATHIN EFUSE. APPROVED RESPIRATORY EQUIPMENT AND PROT N CASE OF EMERGENCY: I.E.G. (213) 726-9696		G REQUIRED;	SRG-31.
6. GENERATOR'S CERTIFICATION: I hareby declare that the converts of this consignment are pocked, marked, and labeled, and are is all respects to proper association for transport by his	riuly and accurately describe giveny according to applicable	d above by proper shippi s interroptional and estima	ing naise and are closefied all government regulations.
If I am a large quantity generator, I consist that I have a progress in place to reduce the occasionally procedurable and that I layer palaceed the progressionals analised of watersets, sto			
three to human health and the animate CR, 7 I can a small questive property. The			
JOHN FERGUSON	- An wa	مر ا	5000 B
7. Transporter 1 Actionwholigement of Records of Materials Signature Signature			Month Day
Head/Typed Norm Head O いいらっと Eventual in the Type of Materials Transported 2 Acknowledgement of Receipt of Materials	40		015101819
rised/Typed Name			March Day
P. Onereptincy Indication Space			
O. Fernillay Owner or Operator Certification of receipt of hazardous motorists covered by this in	nanifes except as pared in the	<u>a 19</u> .	
O. Ferdiny Owner or Countries Certification of receipt of Instandaus materials covered by this related/Typed Name	ngelfes eggapt to nated in the	n 19.	Month - Day - 5

IN CASE OF EMERGENCY OR SPILL, CALL THE NATION TESPONSE CENTER 1-800-424-8802, WITHIN CALIFORNIA, CALL 1-804 12-755

A Contract		'S Techi	nologi	es Soil Red Isdous Soils	yding a			
Date of Shipment	Responsible for P	Responsible for Payment Thursport Contractor			Facility #	Circs by TFS: Laur		
Contrator's Name and Bulls DIAL CORPORA	ng Aukhror:		1	Centeralties & Phe		General Section 1	US EPA ID No	109:
1850 N. CENT	RAL AVE.			Person to Conce	•	Contract		
PHOENIX. AZ 85077 USA Consultant's Name and Billing Address.			Conspilant's Phone &		Continuer Account Number with TCS			
THE ENVIRONM 4710 S. EAST				Person to Conta				
LOS ANGELES, CA 90040 USA							r Account Number with TIS	
Contrastion Site (Transport troon), (owner or stareds)				Site Change		arrex Lexts		
DIAL CORPORATION 9300 RAYO ST.			JOHN FE	ф7-5196 RGUSON	TPH Levels AVC.			
SCOUTH GATE CA 96703 HCA				1,		Lorda		
Overground Facility (Transport for finance & address) TPS TECHNOLOGIES			Facility Plante # Facility Plante Numbers 800-862-8001 Person to Communication					
12328 HIBISCUS AVE.			DARREN FAXE	R. BARTLE	₩			
Arled antique CA 97301 1154 Transporter Name and Mailing Address			Transporter + Pb		Transporter's US EPA ID No.:			
BOB FIDLER INTERNATIONAL 249 ARDHORE ST. SAN BERHARDING, CA 92404 USA				Persona to Constact: BOB STALES		Time-porter's DOT No.		
				FAXE. (909) 881-1223		Cussoss Account Number with 175: 7808FID		
Description of Boil		Contaminates		os Oly Descr	tption of Delivery	Gross Weight	Tare Weight	Net Weig
Saved Organics (by 3 Only 3	0 · 10% () 16 - 20% () 20% · · · · ·	Cus 0 Depart 0 Other 0				67860	2380	4000
Send O Organic V Cay O Other O Les any composer to many sheet	0 - 10% G 10 - 20% G 20% - over U	Cus () Diesel () Orber ()						70,00
Concrator's and/or control Sheet completed and certif any tony. There type blace, Sheet Drys.	tunt's resujuacion: V	rnerdium Si Connari	ite shown a					
Transporter's certification condition as when receive without off-loading, addin	: If We acknowledge to ed. If We justiles certi	receipt of the Ty that this s	soil descri soil is being ay delaying	directly transpor	ted from the Gene ute.	is being delivere ration SUE to th	d in exactly se Designate	the same
Description #					7			
Recycling Facility certifies : Find at Type Nome:	the receipt of the soil cou	wred by this o	***************************************	ega us noveglaboyé: Aponesida opo	77	•		
				**		r n		

Chile of Shipmen):	A Section of	fot Payanent:	n-Maran Ferres		Facility #	G	Barriage (
10-31-54 Ceremona a Nagyana M	Contri	<u>ietor</u>	10 ÷		A87	07748		88
DIAL CORPOR 1850 N. CEN	ATION			Person to Cont.		Cesenso	TUS EPA (D No	
PHOENIX, AZ				FAXE		Castoped	Account Mounte	*WATES
Consider/s Name and Si	ling Address:		UEA	Caregoria Pa	our F	701	ALCO	
THE ENVIRON 4710 S. EAS		UP.		Purez lo Coma		· • ·		
FOR WAGEFER			USA	PAXE:	·	3	Accept Number	-WTPS
Contratable Size (Tecopyrist				Silo Plegra A		ALLEX	EEUV.	
DIAL CORPOR. 9300 RAYO S				niéha: 22 muoi	97- 5196-	Levels TFS: Levels		
SOMITH GATE	<u>C1 90702</u>		JSA	7.7. T.	muus uu	AYG.		
TPS TECHNOLO	OTEC			:19R: 180-552	-8001		OH Nurvivers	
12928 HIBIBO				OARREN DARREN	R. BARTL	ETT		
Adelecto CA	-\$22 <u>0</u>		ISA .	<u>618-246</u>	-8004			
DOB FIDLER I	NTERNATION	/AL	_	COOL A	16 <u>-2432</u>	27	次生	
SAN BERNARDI		04 U		808 FIN 698 (9 89) 86			Street Province	NA TES
Description of Sell	Méditure Content	Contembrated by	*************	· · · · · · · · · · · · · · · · · · ·	One of Delivery		al Tara Velgasi	Not Weigh
Send O Organic O Cay U Ober 3	0-10% D 10-30% C 20%-100 G	Co 3 Charlet C Charlet				64540	18120	V224
State C Output C Outp	D-MS C XS-ores C	Case S Case S Case S			and the second		1 -	17.0
Generator's andjor consul Sheei couspicted and card	iani's certification: i	[Wik certify that the Generalism Search	e soal rejere	razi kercia ia i and maliking ka	nices collects for a incus collect or	on these soils de down to cach so	scrained on the So If their months aft	ii Data
Englisher	George 3	Complete To	See	750 //	D	/	Stands De	7 200
Transporter's certification	· //Yes addragated pa	receipt of the soil	encribal i		y that such and	a being deübe	er in coodly in	
condition as when recovery without off-looding, addis-	d. UM perseur cars g to, subtracting free	b/y that this one is n or in any may di	i beorg din Uryong dab	ally Banacert Service godiny	& from the Con	gracion Sile to i	to Designated I	eclity
MAZTIN	KIEF	4	7	ZŽ,	44		75 3	16
Disciplinates			1					
Decycling Facility carefus to From an Type (1988)			3 cc 4 i	regist About	78			
D. Bortlett/	900 00						10-51-	

8-26×

Cate of Shipment	Ansponsible for I		·	rdous Soils for Dack #:	T Eactbrive	Given by T7)				
	Contrac				A07	87748	l e			
Canarator's Name and Silling DIAL CORPORAT				Consister's Plant	v; *.	Generally's US	EFA ID No.			
1850 N. CENT				Person by Contac	r					
				FA.30:		Carrent	ant Number with T			
PHOENIX. AZ 6 Consultant's Name and Billion	***************************************		USA			701417				
THE ENVIRONME				Consultant's Please	***					
4710 S. EASTE				Person to Contact						
LOS ANGELES,	C+ 04444			FASE		Customer Acres	int Number with T			
Concration Stor (Transport But	00000000000000000000000000000000000000		USA	Sign Phone #		77UCC)	IV.			
DIAL CORPORAT	TON .			PASS SCALE	07-5150	Jurets				
9300 RAYO ST.				TOTAL EE		TPH Cereb				
SOMUTH GATE.	CA 90703		USA	FAXs:		AVG. Levels				
Designated eachity (Transport	70000000000000000000000000000000000000			Facility Phone &		Facility Parmie N	lumbers			
TPS TECHNOLOG				Reserve Contact						
12328 HIBISCU	S AVE.			DARREN I	R. BARTLE	TT				
<u> </u>			IIGA	419-786						
Transports Name and Mulling 208 FIDLER IN		L		Transporter's Pho		DAL T	DA ID No.			
249 ARDHORE S				Person to Contact	finasporter s DOT No.:					
SAN BERMARDIN	n <i>r.</i> casa	u	USA	200 0101 200 (909) 88			nt Number was T			
Description of Soil	Moisture Content				ation of Delivery	Gress Weight	or Bre Weight Net 4			
الاستواد واست	9-10% LJ 10-20% LJ	Car G Deset G								
Chy a Onne a	30% - evec 3 0 - 10% 13	Other C			-	WS 500	XUTYO BED			
Sund Co Congarine C Clay Li Colhes C	10 - 20% CJ 20% - over CJ	Other C					19.			
The Peters we wond debut and a few or the series	•			14353	7		ح			
Generator's audior consults Slove completed and certific										
any wey.				-						
Steve Dixon	- OS OUA	Consultant Ar A a s		TE/			10 31			
Transporter's certification: consiltion as when receives	IIWe acknowledge	receipt of the s	oil descrit							
urthout off-loading, adding			delaying	delivery to such sa		/				
DAN DA	J D L/10			contrast and date	NA.	who	173 137/			
Pacropeticion							•			
Recycling Facility certifies th	a merita of the mill con	wred by the ma	nifest esse:	pt as includ alarm						
Tentor Type Names D. Burtlett/9				Company date	73					
and the second contract to the second		5.00 m	- 1	loud	1 %	/ .A	-3/-76			

Assporathic for Permissible Thansand	ardous Soils	d of Manifest 9
Contractor Concrete Name and Billing Address	107	97748 60
DIAL CORPORATION	Granaus (Paper)	Common & US DA IO No.
1850 H. CENTRAL AVE.	Forest Concer	
PHOENIX, AZ 85077 USA	AXS.	Constant Actival Newson with 115
Compainent's Name and Billing Address	Consultation Photos	
THE ENVIRONMENTAL GROUP 4710 S. EASTERN AVE.	Person as Consper	*-
LOS ANGELES, CA 98040 USA	TACO:	Continues Account Sciences with 175
Generalized Sinc (Transport Scott, Institute & miditary)	Ris Phose #	7THEENV
DIAL CORPORATION	15675-200-5100-	we
9300 RAYO ST.		Um Umb
SDAUTH GATE, CA SATAS	AND PERSON	/VC
Dotgrafiet facility (Entreport to): here & pident)	AND PLAN	Facility Person Name Ayra
TPS TECHNOLOGIES	800-852-9001	
12328 HIBISCUB AVE.	Parente Contract	
	DARREN R. BARTLE	124
Adelanto, CA 92301 UPA Transports Nama and Nothing Address:	519-245-8884	
BOB FIDLER INTERNATIONAL	1989) ASS-2432	Personal & BADA:
249 ARDHORE ST.	Person to Concact:	Deservoires a DOL Non
	ROB FTDLED	Cushing Acquis Number was THE
SAN BERNARDING, CA 92404 USA Description of Soil Moissure Content Contentrated by Assets	(989) 881-1223	7ECHFID
	L. Oty: Description of Delivery	Gross Meight Tare Preight Het Weigh
Sent C Organic C 19-20% C Organic C		15940 3140 44300
Same Organic S-10% C Car U		
Cay 1 Own 2 275 own 2 Other 2		<u> </u>
Generator's analor consultant's certification: Upite certify that the soil ref. Sheet completed and certified by menus for the Generation Site stopun ato	reveal hards in taken astirally from	these soils described in the Soil Date
such conduction of conduction of meters in the Companion and Middle and	are and the second that seem seems to the	ene in their root him, inches affiling Cit
Prips or Type Harmon Generator S Controllmen MC Migr	は ラン・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	Mason Cay Year
Steve Wear as sugar Americal of Transporter's cardification. If the economical grantest of the end describe	d above and certify that such and h	10 31 96 to being definered in crossity the general
condition as when received. If We further certify that Date soil to being a without off-loading, adding to, subtracting from or in any way delaying d	linetly transported from the Gener	ation Site to the Designated Facility
	ensolve the contract	, Married City Control
Warne Johnston	スムムノス	10 31 1%
	1	
Recording (eculity or lifes the result of the sail course by the manifes	atinotes above: / \ /	
Resycling Facility cyrilles the recipi of the ted course by the mention except from Type Name D. Bartlatt/S. Clements	appear done	

and the second		Non-Haz	les Soll Rec ardona Solla			
Date of Shipments	Responsible for Payment Contractor	Transp	oner Track *: 143	Facility *	Gheaby 175: 87748	Last 2022
Centrator's Name and Siling DIAL CORPORAT			Consessor's Pla	one#:	Constitute's US 28A	
1850 N. CENTS			Person to Cuille	nt		
			PAKE		Ciciroma Arpinia N	ageing with TRE
PHOENIX, AZ 6 Compatents Name and Billing		USA			7DTALCO	
THE ENVIRONNE			Consultant's Pi	was f.		
4710 S. EASTE	RN AVE.		Person to Conse	a ·		
LOS ANGELES.	C	USA	MXI:		Customer Account N	omber with IPS
Ceneration Sele (Transport Ince		VƏA	Site Chang 6:		SIDX STEENS	
DIAL CORPORAT	TON .	,	HERSON BY CONTR	<u> 97-5198</u>	Lends TPH	
9300 RAYO ST.			CHA ES		Leve	
SOMUTH GATE.	CA 90701	HITA	FAXE		AVC. Levels	
Oraignated Foculty (Transport			Society Process		Facility Poressi Numb	en:
TPS TECHNOLOG			Person to Conqu			
12328 HIBISCU	PAYE.		DARREN	R, BARTLI		
Artic Campton CA Transporat Name and Mailing		HEA	A19-246	***************************************		
BOB FIDLER IN			Transporter's (5)	008* (AF-2432	105 57A	74T
249 ARDMORE S			Person to Conce	#	Transporter's COT N).;
SAH BERNARDIN	O. CA 92404	USA	PAXI.	81-1223	Curamer Account No 7808FID	mbu was TTS:
Description of Soil		used by: App		iption of Delivery	Gross Height Tare V	/eight Het Weig
Sent G Organic G Clay G Orber G	0-10% D Get 10-20% D Direct 20%-10% D Octoo				172550 006	40km2
Send C Cigare C	0-10% G Gs 19-20% G Dien	9	A			
Clare Cl. Other Cl.	20% - ever U Other		/ \\ /4387		1 /	<u> </u>
* * * * * * * * * * * * * * * * * * *						
Sheet completed and certific	ent's carrification. [[Western) ed by mejus for the Concretio					
Prior or Type Okeny	Communicat Co	ക ച	a programa de la companya de la companya de la companya de la companya de la companya de la companya de la comp		, Mc	ada Dey 1 Se
Steveling	- 60 Conner I/We achonomisting record of					<u>0 3/ 2</u>
condition as when received	. UWe further certify that t	his soil à bein	g directly transpor	rted from the Gen	enstron Site to the Desi	quared Facility
unification-lossing, editing	to, subtracting from or in ar		g attours out seek Systems out seek	304.	j 344	way Cay 1 Ye

	e receipt of the soil appeared by t	*******************************				
Print or Type Name	. Cloments		Significant and date	$i = I \cup U$	ment 10	

Date of Shipment	Responsible for Contrac	Payment	Тгальеро	rdoes Soils	Facility #	Cores by 175						
Centrator's Name and Edit	ng Address	COF	16	Generalty's Phy	A07 ***	Generator's 1	US EPAID No	001				
DIAL CORPORA 1830 N. CENT				Person to Conto	*			***************************************				
*****	an are.			FAX®								
PHOENIX, AZ	***************************************		UEA	Lu v.		Costomer Ac	count Numbe	r with TPS:				
Consultant's Name and Sill THE ENVIRONS		D		Concentration 18	***							
4710 S. EAST				Person to Contr	т ·							
				EAX#		Customer Act	ovunt Namber	was TFS				
LOS ANGELES. Con-ration Silve (Transport)	***************************************		IIFA	Site Phone #			3 17					
DIAL CORPORA	TION			Period to Cupus	אר <u>ובי</u> לע	Levels						
9300 RAYO ST						TTT I Carrella						
SOMETH PATE	CA 30707		1163	₩ FE		AVG. Umes						
Designated Facility (Transpo	50000000000000000000000000000000000000			Fricility Phone #		Facility Permi	l Numbers					
TFS TECHNOLO	T.	. *		Arad - AG 2 Parson to Contac								
12028 HIBISC	US AVE.			DARREN	<u>R. BARTLE</u>	<u> </u>						
Adalanta (A			LISA	E19-746	***************************************							
808 FI DLE R I		AL		Transporter's Par (909) 8	ие т 86-2432		US EPA JO NO TO A A CT	55/14/2005				
249 ARDHORE	ST.			Primor & Contac		Transporter's	DOI No:					
SAN BERHARDI	NO. CA 9240	714	USA	5AX#. (905) 8		Customer Aus 7808F		with TI'S.				
Description of Soil	· · · · · · · · · · · · · · · · · · ·	·····			ption of Delivery	Gross Weight		Not Wes				
Sand G Organic G Clay G Orber G	0. [V& C 10. 27% C	Gas () News ()				NGHEN	26460	87/11				
Said C Crame J	0.10% C 10-20% C	Other C Cas C Dicad C				1////	2	,				
Clay O Other O Est any street blood to seem blood	X/% - over C	Other 3		11175	۷,		Ц_	<u> 26.</u>				
Generator's undige consu	18 mars	(Marcanthether)		1437								
Short completed and cert	fied by metes for the	Ceneration Si	te skown al	ove and nothing)	us been added or	done to such soil	that tookid	oller it in				
trry way, Not or Type Home	Crocum J	Consultan		prayer spo does /	7)	•	Manuh	Day 1 70				
Steve 1/1x		un e 7 Au recessos de Gue	11 + L	77.	ity that such soil	a kane kaliber	J / O I. V ki esacilo	كليد سيس				
anditum as when receive	ed. IJWe further cert	sfy that this s	ioll is being	directly transpor	ted from the Gen							
Trans or Type Name	***************************************			pulling and com		27	I second	(A) (1)				
VETER FIG	UNGE			// T/		-	11() 1	2 12				
· · · · ·				€ '								
Recycling Facility confee	the recent of the color	evered in this	manijeci sers	El as apped shows								
out or Type Mane:	g		***************************************	Marker and date	-Ai-							

•





	i					LOCATION: The grill hole location referencing to	CAL	VVVVenensisse	General Notes
Ž	z.	E SE	Z	2	NEW NEW NEW NEW NEW NEW NEW NEW NEW NEW	SURFACE EL: Using local, MSL, MILLW or other	ร์สณฑ	value verene ver	General Notes
ELEVATION, IL	DEPTH, N	MATERIAL	SAMPLE NO	SAMPLES	REC //DRIVE	MATERIAL DESCRIPTION		1	Soil Texture Symbol
		7.						12	Sloped line in symbol column indicates trensitional boundary
12	2		1	X	25	Well graded GRAVEL (GW)		3	Samplers and sampler dimensions (unless otherwise noted in report text) are as follows:
		1				Poorly graded GRAVEL (GP)	Ķ		Symbol for:
-14	4		2		(25)	Well graded SAND (SW)	COARSE		1 SPT Sampler, driven 1 3/8" ID, 2" OD 2 CA Liner Sampler, driven
16	8	, , ,	3		(25)	Poorly graded SAND (SP)	G		2 3/8" ID, 3" OD 3 CA Liner Sampler, disturbed 2 3/8" ID, 3" OD
-18	8		4		(25)	Clayey SAND (SC)	RA-Z		4 Recovery Interval 5 Thin-walled Tube, pushed 2 7/8" ID. 3" 00
L-20	10					FULL CANID (CAA)	Ē		5 Bulk Bag Sample (from cuttings) 7 Hand Auger Sample
-22	12	The second secon	5		18*/ 30*	Silry SAND (SM)		***************************************	8 Rock Core Semple 9 No Sample Recovered
-24	14	THE CONTRACT OF THE CONTRACT O	đ	X X		SAND with silt (SP-SM)			10 Vibrecore Sample 11 Pitcher Sample
-26	10					Fat CLAY (CH)	and not not not not not not not not not not	4	Sampler Driving Resistance Number of blows with 140 lb. hammer, falling 30-in, to drive sampler 1-ft, after
-28	18		7			Lean CLAY (CL)	K - X	NOTATION AND AND AND AND AND AND AND AND AND AN	seating sampler 5-in.; for exemple, Blows/ft Description 25 25 blows drove sampler 12*
30			8		20"/ 24"	Silty CLAY (CL-ML)	E G R		efter initial 6" of searing 86/11" After driving sampler the initial 6" of seating, 36 blows drove :
32	20	Marine Control of the	9	•	(25)	Elastic SILT (MH)	AIN		sampler through the second 6° interval, and 50 blows drove the sampler 5° into the third interval
	22				20*1	SILT (ML)	E		50/6" 50 blows drove sampler 6" after initial 6" of seating Ref/3" 50 blows drove sampler 3"
34	24		10		30"/ 30"	Clayey SILT (MUCL)		5	during initial 6" seating interval Blow counts for California Liner ;
-36	.28		11	1333	20*/ 24*	SANDSTONE		6	Sampler shown in () Length of sample symbol approximates recovery length
-38	26					SILTSTONE	and the second s	7	Classification of Soils per ASTM D2487 or D2488
-40	30				Ŧ	CLAYSTONE		8	Geologic Formation noted in bold font at the top of interpreted interval
-42	32			Bullet Andread Laborator A to A Laborator		_	ROCK	9	Strength Legend Q = Unconfined Compression u = Unconsolidated Undrained Triaxial
-44	34	V. T.				MUDSTONE	on, and one of the section and the section and		t = Turvana p = Pocket Penetromater m = Miniature Vano
20		77				GRANITE	W	10	Water Level Symbols 7 Initial or perched water level
-46	38					SHALE			Final ground water level Secpages ancountered
-48	38					Paving and/or Base Materials	**************************************	71	Rock Quality Designation (RQD) is the sum of recovered core pieces greater than 4 inches divided by the length of the cored interval

Well Construction Diagram Well Cap Protective concrete cover Aboveground cover Concrete Grout/nest coment Bentonita pallets Send Slotted pipe w/bottom cap Grout plug Sand Beckfill Native Backfill A. The different types of well constructed include but are not limited to monitoring, vapor extraction, and piezometer. B. Types and sizes of the materials used are as described in report text

General Notes, continued

- 12 Refer to report text for EPA Test Methods used
- 13 Commonly used acronyms:

MSL Mean Sea Level MLLW Mean Lower Low Water E Devenion Foot or Feet Inch or Inches Kips Per Square Foot IN. KSF TSF Tons Per Squere Foot Pounds Per Cubic Foot Undrained Shear Strength Milligrams Per Kilograms PCF Su MG/KG Micrograme Per Kilograma Parta Par Million UG/KG NO Nat Detected D NA Detected Not Analyzed Not Analyzed Photoiomization Detector Methyl Tertiary Butyl Ether PID MTBE TPH Total Petroleum Hydrocarbons PCE Tetrachloroethylene Trichlargethene 1,2-Dichlorgethane EDC 1,2-Dichloroethene cis-1,2-DCE cis-1,2-dichloroethene SVOC Serre-Voletila Organic Compounds

- 14 PID READING measured in parts per million by volume (ppmv)
- 15 Kelly Bar Weights used with bucket auger drill rig.

0 - 30 ft 3450 lba 30 - 60 ft 2050 lbs 60 - 90 ft 1140 lbs

ELEVATION, ft	оертн, А	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: 110 ft. MATERIAL DESCRIPTIONS	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
108	2-4-	American Control of the Control of t	ining the Salakanan		ARTIFICIAL FILL (af) Silty fine SAND with gravel (SM): loose,, brown to light brown, with concrete debris, moist, soapy odor with no visible stainning								
104	6- 8-	The second secon	1-5		Alluvium (Qal) Silty fine SAND (SM): dense, brown to dark brown, moist, no odor or stainning	7.8	1700	ND	**********	ND	ND	ND	ND
-100 98	10- 12-	100 (100)	1-10			10.5	39	ND	********	ND	ND	ND	ND
96 94	14 16	Information According to the Control of the Control	1-15		Medium SAND (SP): very dense, brown to light greenish brown, maist, scapy odor with no visible stainning	6.8	171	ND		ND	ND	ND	ND
92 90	18 20-	A the second sec	1-20	1. (A), (A), (B)	Fine sandy SILT (ML),stiff, brown to dark brown, moist, soapy odor with no visible	11.6	ND	ND		ND	ND	NIM	VIC.
8 8	22- 24				stainning	11.0	טט	NU		שא	ND	ND	ND
- 84 82	26 28		1-25			27.3	20	ND	www	ND	ND	ND	ND
80 78	30 - 32		1-30		Fine SAND (SM): loose, light brown to tan to	24.7	ND	ND	M-ANTONIAN.	ND	ND	ND	ND
76 74	34 - 36		1-35		yellowish brown, moist, soapy odor with no visible stainning	25.3	ND	ND	MANAGEM	ND	ND	ND	ND
72 70	38 40		1-40										
-68 -66	42 - 44				Silty fine SAND (SM): loose, dark brown, very moist, slight scapy odor with no visible stainning	18.3	ND	ND		ND	ND	ND	ND
64	46 - 40 -		1-45			15.2	ND	ND	1000000	ND	ND	ND	ND
60 59	50 - 52 -												
	***************************************				AR E #						*************	***************************************	

DEPTH TO WATER: first Encountered (¥): At End of Drilling (₹):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 13, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: JRCook CHECKED BY: MEFlack

ELEVATION, A	DEPTH, A	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: Alkyate loading sump area SURFACE EL: Not Surveyed. MATERIAL DESCRIPTIONS	PID READING	TOTAL ORGANIC CARBON, mg/kg	UNIT DRY WEIGHT, pcf	WATER CONTENT %	POROSITY, %	PERMEABILITY, cm/sec
	2 4 6-		EB2 -5		ARTIFICIAL FILL (af) SAND (SP): brown to dark brown, moist, with gravel (concrete debris), wood fragments, no oder	0					- Address of the second of the
	8 10- 12	The state of the s	EB2 -10		Attuvium (Qal) Sity SAND (SM): loose, brown to dark brown, very moist, no odor, dark brown staining	5.7		- 34 36			1.16E-06
	14 16 18		EB2 -15		Sandy CLAY (CL): very stiff, dark brown to brown, very moist, no odor or staining	D			44 37 4 37 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4		
	20 22		EB2 -20		Silty fine SAND (SM): dark brown to brown, very maist, no ador no staining	0	0.31	90	31	47	
:	24 26 28		EB2 -25		Sandy CLAY (CL): very stiff, light brown to brown, no oder no staining Silty fine SAND (SM): dense, dark brown to brown, very moist, no oder or staining	1.2	.0.33	86	35	49	1.79E-07
-	20 30 - 32		EB2 -30		Sandy CLAY (CL): stiff, light brown to brown, very maist, no odor or staining Silty, fine SAND (SM): dense, brown to light	1.3					
	34 36 -		EB2 -35		brown, very moist, no odor or staining	1.0		90	23	46	
	38 40				x wet below 39'	1.5					
Parkenenti-tirementa-tire	42 44 46	a inend al al A	-T U			200000000000000000000000000000000000000	V. (5)				
	48										

COMPLETION DEPTH; 41.5 ft. DEPTH TO WATER:
First Encountered (♥): 39.0 ft.

First Encountered $(\underline{\psi})$: 39. At End of Drilling $(\underline{\psi})$:

BACKFILLED WITH: Bentonite/Native DRILLING DATE: September 20, 1996

DRILLIG METHOD: Hollow Stem Auger

DRILLED BY: Valley Well Drilling LOGGED BY: JRCook

CHECKED BY: MFlack

ELEVATION, R	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: Alkyate loading sump area SURFACE EL: Not Surveyed. MATERIAL DESCRIPTIONS	PID READING (PPMV)	TOTAL ORGANIC CARBON, mg/kg	UNIT DRY WEIGHT, pdf	WATER CONTENT %	POROSITY, %	PERMEABILITY, cm/sec
2 4		EB2 -5		ARTIFICIAL FILL (af) SAND (SP): brown to dark brown, moist, with gravel (concrete debris), wood fragments, no odor	14.8) -	
10 12 14	manufacture and a second secon	EB2 -10		Alluvium (Qal) Silty SAND (SM): loose, brown to dark brown, very moist, no odor, dark brown staining	1.2	0.34				
16 18 20 22	eropologicos eropo	EB2 -15 EB2 -20			3.1		93	28	45	
24 26 28		EB2 -25		Sandy CLAY (CL): stiff, brown to light brown, very moist, no odor no staining	3.7		87	34	49	1.87E-07
30 32 34	The second secon	EB3 -30 EB3		Silty, fine SAND (SM): dense, brown to light brown, very moist, no odor or staining	5.9	0.25				
36 38 40 42		-35	The state of the s	*	5.7					
44 46 48	the state of the s							Sections		

DEPTH TO WATER:

First Encountered (12): 37.0 ft. At End of Driffing (x): BACKFILLED WITH: Bentonite/Native DRILLING DATE: September 20, 1998 DRILLIG METHOD: Hollow Stem Auger

DRILLED BY: Valley Well Drilling LOGGED BY: JRCook CHECKED BY: MFlack

æ		_	Ö		LOCATION:	9	0	9/kg	ej.	***************************************	- Table		1/ка
ELEVATION, R	DEPTH, R	MATERIAL SYMBOL	SAMPLE NO	SAMPLES	SURFACE EL: 110 fl.	PID READING	ТРН, тд/кд	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE mg/kg	Chlorafarm, mg/kg
ELEV,		MA	SAM	SA	MATERIAL DESCRIPTIONS	표면	TPH	ENZE	Forma	- E	Z E	F 5	torafa
	***************************************	an inggress ag	0000000000		30333333333333333333333333333333333333	<u> </u>		<u>m</u>	-	1			ర్
109	1			A. Pr. Pr. Pr. doublindesh	ALLUVIUM (Qai) Silty CLAY (CL): medium stiff, darkl brown, moist								
- 108	2												
- 107	3												
106	4-												
105	5-					0	ND						
104	6							***************************************					
103	â					***************************************		***************************************					
- 102	9-						rie in initializa	HHHHHHHHHHH	an constant and the second				
- 101	10-	///// }				- 0	ND	***					
100	11	,			Silty SAND (ML),medium dense, modertate brown, moist, fine to medium grained			OH + + + + + + + + + + + + + + + + + + +				-	
99	12	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				THE PERSON AND THE PE							
- 98	13-						MA SHE AND AND AND AND AND AND AND AND AND AND						
97	14 -					Na appearment and a special section of	05.206.206.206.206.206					***************************************	
96	15-					0	ND	**************************************					
95	16				CLAY (CL): stiff, dark brown, moist, fine grained, plastic								
94	17							Name of the latest of the late					
93	18 -							THE STATE OF THE S					
- 92	19-							8-	BLOODING CO.			***************************************	
91	20					0	ND						
90	21			rarera								rivi e responsa	
- 89	22 -									le di tradicale calcular di ca		rrian Grant de la constanta	
88	23												
87	24												
86	25	and the state of t											
- 85	26	4					-						
84	27-	1						***					

COMPLETION DEPTH: 21.5 ft. DEPTH TO WATER:

first Encountered (¥): At End of Dniling (▼):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 6, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: LLawhon CHECKED BY: MEFlack

ELEVATION, ft	DEPTH, ff	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: 110 ft. MATERIAL DESCRIPTIONS	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chlaraform, mg/kg
- 109 108 107 106	1- 2 3- 4-				Artificial Fill (af) Sandy GRAVEL (GP): medium dense, Pale yellowish, orange, moist, fine to coarse grained sand matrix with gravel to 1-inch diameter Alluvium (Qal) Silty SAND (SM): medium dense, modertate brown, moist, fine to medium grained								
105 104 103	5- 6- 8				3	0	ND	1000001	NOOMOON .	***************************************	MANAGE		
102	9 10-	Mag. 11				0	N D	100000		****		anas.a	Man-i
99 98	12												
97 96	13 14 - 15												
95 94	16 17												
93 92	18 19 20												
91 90 89	21												
88 - 87	23 - 24 -												
86 - 85 - 84	25 - 26 - 27 -												

DEPTH TO WATER: first Encountered (꽃): At End of Drilling (꽃):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 25, 1997 DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: LLawhon
CHECKED BY: MEFlack

ELEVATION, ft	DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: 110 ft. MATERIAL DESCRIPTIONS	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	- 100 E	1,2 DG 42 (9)	TCE , mg/kg	Chlaraform, mg/kg
109 108 107 106	1-23				ARTIFICIAL FILL (af) Gravely SAND (SP): medium dense, Pale yellowish, orange, moist, fine to coarse grained sand matrix with gravel to 1-inch diameter ALLUVIUM (Qal) Silty SAND (SM): medium dense, modertate brown, moist, fine to medium grained			<u>u</u>			оолоолооло		נס
105	5- 6-	###\$3 <u>7</u> 3				0	ND		****				*****
103	8-							,					
102	9-												
101	10					0	ND						_
100	11-								TH 19 AND AND ADDRESS OF THE STREET			***************************************	
99	12												
98	13-												
97	14			a de la companya de l									
96	15					, , , , , , , , , , , , , , , , , , ,		***************************************					
95	16 -												
94	17												
93 - 92	18												
92	19 - 20 -												
90	21 -												
- 89	22-							C-11-00-00-0000000000000000000000000000				e Annibuskus Annibuskus An	
88	23							A CONTRACTOR OF THE CONTRACTOR				and the second	
87	24			d-ui-di-B-B-B-B-B				A CONTRACTOR CONTRACTO					
86	25			E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-					000000000000000000000000000000000000000				
85	26							THE COLUMN TO TH					
84	27 -			- Andrews									

DEPTH TO WATER: first Encountered (坚): At End of Drilling (뽗):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 25, 1997

DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: LLawhon
CHECKED BY: MEFlack

					LOCATION:		000000000000000000000000000000000000000	99					50
ELEVATION, ft	DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	SURFACE EL: 110 ft.	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
					MATERIAL DESCRIPTIONS	<u>а</u>		86	ш				Ch
109 108	1 - 2 -				ARTIFICIAL FILL (af) Gravely SAND (SP): medium dense, Pale yellowish, orange, moist, fine to coarse grained sand matrix with gravel to 1-inch diameter								
107	3				ALLUVIUM (Qal)								
106	4-	1 44 . : 			Silty SAND (SM): medium dense, modertate brown, moist, fine to medium grained								
105	5				-	0	580						
104	6						300					_	_
103	8	A 1.5											
102	9												
101	10-					0	ND	_	_	_	_		_
100	11-												
99	12-												
98	13												
97	14 -												
96	15												
95	16												
94	17												
93	18 -												
92	19-												
- 91	20												
90	21												
89	22 -												
88	23												
87	24 -												
- 86	25 -												
85	26												
84	27-												

DEPTH TO WATER: first Encountered (\(\forall \)). At End of Drilling (\(\forall \)).

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 25, 1997

DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: LLawhon
CHECKED BY: MEFlack

ELEVATION, ft	DEPTH , ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: 110 ft. MATERIAL DESCRIPTIONS	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
108	2 - 4 -				Alluvium (Qal) Silty CLAY (CL): stiff, moderate brown, damp, fine grained								000000000000000000000000000000000000000
104	6 - 8 -					0		ND		ND	ND	ND	0.01
100	10- 12-					0	80000M	ND	30000A	ND	ND	ND	0.076
96 94	14-	100 (100 (100 (100 (100 (100 (100 (100				0	******	ND		ND	ND	ND	0.5
92	16 18				Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained					,,,,			
- 90 88	20 22-				Clay (CL): meduim stiff, moderate brown, moist,	0	-20-70	ND		ND	ND	0.022	0.024
86 - 84	24 26				Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained	0	~~	ND		ND	ND	0.0076	ND
82	30 -					0	tolisio	ND	_	ND	ND	0.05	ND
78 76	32 - 34 -												
74 72	36 - 38 -				SAND (SP): medium dense, moderate brown, moist, medium grained	0	NO.	ND		ND	ND	ND	ND
68	40 - 42				Sandy CLAY (CL): stiff, dark brown, moist, fine to medium grained	0		ND		ND	ND	0.0031	ND
- 66 64	44 - 46 -					0	20000r	ND	_	ND	ND	ND	ND
62 - 60	48 - 50												
- 59	52 -						***************************************						

COMPLETION DEPTH: 46,5 ft.

DEPTH TO WATER: first Encountered (♥): At End of Drilling (▼):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 6, 1997

DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: JRCook
CHECKED BY: MEFlack

ELEVATION, A	DEPTH, A	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: 110 ft. MATERIAL DESCRIPTIONS	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE . mg/kg	Chloroform, mg/kg
-					Artificial Fill (af)			<u> </u>					Ÿ
108	2-				SAND with gravel (SP): Pale yellow orange, dry medium dense, fine to coarse grain with gravel								
106	4-		EB9		to 1-inch diamter concrete rubble								
- 104 - 102	6- 8-		-5		Alluvium (Qal) Silty CLAY (CL): Moderate brown, moist,	0	*****	ND	_	ND	ND	ND	0.17
100	10-		EB9		medium stiff, fine grain								
98	12		-10	1 1		0		ND		ND	ND	ND	0.64
96	14-												
- 94	16-		EB9 -15		Silty SAND (SM): Moderate brown, moist, medium dense, fine to medium grain	0		ND	_	ND	ND	ND	0.29
92	18	2			·								
90	20		EB9	1 1	Silty CLAY (CL): moderate brown, moist fine grain,	0		ND		ND	ND	ND	0.46
88	22 -	w.	-20		plastic			,,,	_	140	NU	140	0.40
86	24										'		000000000
- 84	26-		-25			0		ND	-	ND	ND	ND	0.2
82	28-												00000000
80	30 -		EB9	1 1	SAND (SP): pale gray, moist, medium density,	0		ND	_	ND	ND	ND	
78	32		-30		medium gray								
76	34 -		EB9										
74	36 -		-35			0	_	ND	_	ND	ND	ND	-
72	38												
70	40-	200	EB9		Silty SAND (SM): moderate brown, wet, loose fine to	0	_	ND	_	ND	ND	ND	
68	42-	197	-70		medium grain								
66	44 -			Ш									
- 64	46 -		EB9 -45			0		0.012	-	ND	ND	ND	-
- 62	48 -												
60	50												
- 59	52 -								000000000000000000000000000000000000000				

COMPLETION DEPTH: 45.0 ft.

DEPTH TO WATER: first Encountered (∑): At End of Drilling (∑):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 24, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: LLawhon CHECKED BY: MEFlack

ELEVATION, ft	DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: 110 ft.	PID READING (PPMV)	ТРН, тд/кд	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE . mg/kg	Chloroform, mg/kg
		-	Ø		MATERIAL DESCRIPTIONS	붑	-	Ē	Ŗ.				Chib
108 106	2- 4				ARTIFICIAL FILL (AF) Graverly SAND (SP): medium dense, pale yellowish orange, dry, fine to coarse grained with gravel to 1-inch diameter, concrete rubble	-							
104	6 - 8				Alluvium (Qal) Silty SAND (SP): medium dense, moderate brown, fine grained	0	50 7	ND	4umm	ND	ND	ND	0.1
100	10-					0		ND		ND	ND	ND	0.45
98	12-						100000	ND	******	טא	ND	טא	0.15
96	14-				Clay (CL): meduim stiff, dark brown, moist, plastic	0		ND		ND	ND	ND	0.099
92	16- 18				(OL): (OL):						_	-	
- 90	20-									. I m			
88	22 -					0		ND	_	ND	ND	ND	0.022
86	24				Silty SAND (SP): medium dense, dark brown,								
84	26 28				moist, fine to medium grained	0	*****	ND	_	ND	ND	ND	ND
-80	30 -												
78	32 -				Silty CLAY (CL): medium stiff, dark brown,moist	0		ND	_	ND	ND	ND	ND
76	34 -												
74 72	36 - 38				SNAD (SP): medium dense, medium brown, moist, medium grained	0	NAMES	ND		ND	ND	ND	ND
70	30 40 -												
68	42-	11.2			Silty CLAY (CL): medium stiff, dark brown,moist	0		ND		ND	ND	ND	ND
66	44 -												
64	46					0		0.031		ND	ND	0.0032	ND
62 60	48 · 50												
- 59	52 -												
				<u>.</u>	A1 5 #		000000000000000000000000000000000000000						

DEPTH TO WATER: first Encountered (≌): At End of Drilling (▼):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 24, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: JRCook CHECKED BY: MEFlack

LOCATION: SURFACE EL:110 ft. SURFACE EL:110 f	æ			~		LOCATION:			g. Kg	a.	900000000000000	000000000000000000000000000000000000000		Ď
ARTIFICIAL FILL (AF) Graverly SAND (SP): medium dense, pale yellowish orange, dry, fine to medium gravel to 1-inch diameters. Some concrete tubble Alluvium (Cal) Silty CLAY (CL): medium dense, moderate brown, damp, fine grained Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND 0.062 Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND 0.062 Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND ND ND ND ND ND ND ND	ION,	Ŧ.	RIAL	S N	J'ES	SURFACE EL: 110 ft.	ON S	ng/kg	m, mg	lehyde /kg	S E	A ®	₩ §	n, mg/
ARTIFICIAL FILL (AF) Graverly SAND (SP): medium dense, pale yellowish orange, dry, fine to medium gravel to 1-inch diameters. Some concrete tubble Alluvium (Cal) Silty CLAY (CL): medium dense, moderate brown, damp, fine grained Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND 0.062 Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND 0.062 Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND ND ND ND ND ND ND ND	EVA	DEPT	NATE	AMPI	SAM		PPI (PPI	H.	ZEN	rmak	1,1D	1,2 I	μĔ	rofor
108 2 138	面		_	ν	-	MATERIAL DESCRIPTIONS	붑	 	Ü	5				CH ₂
Alluvium (Qal) Sity CLAY (CL): medium stiff, moderate brown, damp, fine grained 0 - ND - ND ND ND ND ND 0.062 100 10 98 12 96 14 94 16 92 18 90 20 88 22 86 24 84 26 80 30 78 32 76 34 74 36 72 38 70 40 88 42 66 44 66 46 66 46 67 48 68 60 50						Graverly SAND (SP): medium dense, pale yellowish grange, dry, fine to medium grained with gravel to								
Sity CLAY (CL): medium stiff, moderate brown, damp, fine grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained Sity SAND (SP): medium dense, moderate brown, moist, fine to medium grained							_		NID.		NID	NID	ND	
100 10 10 10 10 10 10 10 10 10 10 10 10						Silty CLAY (CL): medium stiff, moderate brown, damp,	U		ND		טא	טא	ND	MD
98 12 96 14 97 16 98 12 98 16 99 20 88 22 88 22 88 22 88 30 78 32 76 34 77 36 78 32 79 40 68 42 66 44 64 46 65 48 60 50						ine grained								
96 14 94 16 92 18 90 20 88 22 86 24 97 Silty Clay (CL): medium stiff, moderate brown, moist, fine to medium grained Silty Clay (CL): medium stiff, moderate brown, moist, fine to medium grained Silty Clay (CL): medium stiff, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND ND ND ND ND ND ND ND							0	MARKETO	ND	100000	ND	ND	ND	0.062
94 16 92 18 90 20 88 22 86 24 98 90 30 97 88 32 97 98 32 98 98 32 97 98 32 98 98 32 98 98 32 98 98 30 98 32 98 98 32 98 98 30 98 30 98 32 98 98 32 98 98 30 98 32 98 98 32 98 98 30 98 98 98 98 30 98 98 98 98 98 98 98 98 98 98 98 98 98														
Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained Silty Clay (CL): meduim stiff, moderate brown, moist, o - ND - ND ND ND ND ND ND ND ND ND ND ND ND ND			(liber i Usuri				n	*******	ND		ND	ND	ND	0 006
90 20 88 22 88 24 84 26 Silty Clay (CL): meduim stiff, moderate brown, moist, 0 — ND — ND ND ND ND ND ND ND ND ND ND ND ND ND							-				,,	, ,,_	,,,_	
88 22 8 80 30 78 32 74 36 72 38 70 40 88 42 86 44 64 46 46 46 60 50 Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained						3								
86 24							0	_	ND		ND	ND	ND	0.091
Silty Clay (CL): meduim stiff, moderate brown, moist, 0														
82 28 -80 3078 32 -76 3474 3672 3870 40 68 4264 4664 4664 4662 48 60 50			iji er						710		N.C	ND	NO	0.000
-80 30 -		26 -				Silty Clay (CL): meduim stiff, moderate brown, moist,	0		טא	_	ND	טא	ND	0.026
78 32 76 34 -														
76 34 -	1						0	_	ND		ND	ND	ND	ND
74 36 72 38 -70 40 68 42 66 44 -64 46 -62 48 60 50 SAND (SP): medium dense, moderate brown, moist, fine to medium grained 0 - ND - ND d=""><td></td><td>32</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		32												
72 38	76	34 -												
72 38							0	Annen	ND		ND	ND	ND	ND
68 42 66 44 -64 46 -	- 72	38 -				···								
68 42 66 44 -64 46 - Hull Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND ND ND ND ND ND ND ND							0	•	ND		ND	ND	ND	ND
Silty SAND (SP): medium dense, moderate brown, moist, fine to medium grained O - ND - ND ND ND ND ND ND ND ND ND ND ND ND ND														
60 50 moist, fine to medium grained 0 — ND — ND ND ND ND ND ND ND ND ND ND ND ND ND	66					Silty SAND (SP): medium dense, moderate brown								
60 50		46 -	dait		\vdash	moist, fine to medium grained	0		ND		ND	ND	ND	ND
	62	48												
59 52-	60	50												
	59	52 -												

DEPTH TO WATER: first Encountered (꽃):

At End of Drilling (E):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 24, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: JRCook CHECKED BY: MEFlack

	~************************	,	*********		LOCATION:			נלט	T				
N.	4 =	ᅺ	2	S		SE C) Ag	₩,	yde,	RAI	ď ~	l m	Ja/k
ATIC	ОЕРТН, А	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	SURFACE EL:110 ft.	READIII (PPMV)	TPH, mg⁄kg	Ä	naldehy mg/kg	1,10CE mg/kg	1,2 DCA (mg/kg)	TCE mg/kg	Ē,
ELEVATION, ft	DE	MA Sy	SAN	SA	MATERIAL DESCRIPTIONS	PID READING (PPMV)	È	BENZENE, mg/kg	Formaldehyde, mg/kg	The state of the s	₽.5		Chtoroform, mg/kg
-108	_				ARTIFICIAL FILL (AF) Gravely SAND (SP); medium dense, pale yellowish			· vannaar n					
106	2- 4				orange, dry, fine to coarse grained with gravel 1-inch / diameter		1 H					Burn on sound on one	
104	6	i i			ALLUVIUM (Qal)	0	890		Company of the Compan				Assessment vor tear man
102	8 -				Sity SAND (SP): medium dense, moderate brown, damp, fine to medium grained	Ü	000		***************************************				*****
100												000000000000000000000000000000000000000	
- 98	10 12 -			···orinser		0	1400	wholesa	-				
												AN RESTRICTION OF THE PROPERTY	The state of the s
96	14-			\vdash	wet at 15 ft. with black staining	a	15					A. Live stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the stranger street and the s	Standy of Ameliand Amelian
94	16			H		V						de la constanta de la constant	A . A . C. allended And An
92	18											ADTINUTE NATIONAL VANCOUR	des d'audies des des des des des des des des des d
90	20	8			fine grained below 20 ft.	0	660	-				10000	100000
- 88	22-												Andrew Andrew
86	24 -	and the second										100	
- 84	26 -				Silty CLAY (CL): medium stiff, moderate brown, moist, fine grained	0	112						
82	28				_								
80	30 -				CLAY (CL): medium soft, dark bluish gray, moist,	0	38	-0000000		**********		Managemen	M000000
78	32				plastic, trace odor	-							
76	34 -				PIN PAND IN THE STATE OF THE ST								
74	36~			<u></u>	Silty SAND: (SM): medium dense, moderate brown, moist, fine to medium grained	0	ND	***************************************					***************************************
- 72	38 -			**************************************			Service and the service and th						
70	40 -					0	ND						
-68	42 -	stidi.				U	ND	*******				9.000	******
-66	44 -	W (4) 4)											
64	46			4									
62	48			Andrew Andrews									
60	50												
- 5 9	52-												
					A1 5 A					<u> </u>		<u>.</u>	

DEPTH TO WATER: first Encountered (꽃): At End of Drilling (꽃):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 25, 1997 DRILLIG METHOD: Geoprobe DRILLED BY: Vironex

DRILLED BY: Vironex LOGGED BY: JRCook CHECKED BY: MEFlack

DEPTH TO WATER:
first Encountered (學):
At End of Drilling (要):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 25, 1997 DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: JRCook
CHECKED BY: MEFlack

ELEVATION, ft	DЕРТН, ¶	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: 110 ft. MATERIAL DESCRIPTIONS	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
109 - 108 107 106	1 2 3-				ALLUVIUM (Qal) Silty SAND (SM): medium stiff, moderate brown, moist fine to medium grained								
105 104 103 - 102	5 6- 8- 9-					0	-		4.8		_	_	
101 100 99 - 98	10 11 12 13					0			23.6	положня		_	
96 95 94	14 - 15 · 16 - 17				CLAY (CL): stiff, dark brown, moist, fine grained, plastic	0	_		ND	****		_	_
93 92 - 91 90	18 - 19 - 20 - 21					0		_	6.7	_		_	_
89 - 88 - 87 - 86 - 85	22 23 - 24 - 25 - 26 -												
- 84	27 -												

DEPTH TO WATER: first Encountered (≦): At End of Drilling (≦):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 7, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: LLawhon CHECKED BY: MEFlack

ALLUVIUM (Qal) Sitty CLAY (CL): medium stiff, darkl brown, moist 108 2- 107 3- 106 4- 105 5- 104 6- 103 8- 102 9- 101 10- 100 11- 100 11- 100 11- 101 10- 102 13- 103 13- 104 14- 105 15- 107 14 14- 108 13- 109 12- 109 13- 109 14- 109 15- 109 17- 109 18- CLAY (CL): stiff, dark brown, moist, fine grained, plastic 109 1- 109 1- 100 1	
107 3- 106 4: 105 5- 104 6- 103 8- 102 9- 101 10- 100 11- 109 12 98 13 97 14 96 15 95 16- 94 17- CLAY (CL): stiff, dark brown, moist, fine grained, plastic	
106 4 105 5 - 104 6 - 103 8 - 102 9 - 101 10	
105 5- 104 6- 103 8- 102 9- 101 10- 100 11- 109 12- 108 13- 109 14 196 15 107 14 108 15- 109 17- CLAY (CL): stiff, dark brown, moist, fine grained, plastic 100 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<3 — Tr<5 — Tr<5 — Tr<5 — Tr<5 — Tr	
104 6- 103 8- 102 9- 101 10- 100 11- 99 12- 98 13- 97 14 14- 96 15 95 16- 94 17- CLAY (CL): stiff, dark brown, moist, fine grained, plastic	
104 6- 103 8- 102 9- 101 10 100 11- 100 12- 101 10 100 11- 101 10 100 11- 101 10 100 11- 101 10 100 11- 101 10 100 11-	HERE AND A PARTY OF THE PARTY O
102 9- 101 10- 100 11- 109 12- 98 13- 97 14 96 15 95 16- 94 17- Silty SAND (ML).medium dense, modertate brown, moist, fine to medium grained O — — 14.3 — Tr<3 — CLAY (CL): stiff, dark brown, moist, fine grained, plastic	300000
101 10 100 1t 10	
Silty SAND (ML).medium dense, modertate brown, moist, fine to medium grained 93 12- 98 13- 97 14 96 15 95 16- 94 17- CLAY (CL): stiff, dark brown, moist, fine grained, plastic	
100 11- 99 12- 98 13- 97 14 96 15 95 16- 94 17- moist, fine to medium grained CLAY (CL): stiff, dark brown, moist, fine grained, plastic	
98 13 - 13 - 14 - 17 - 18 - 18 - 18 - 18 - 18 - 18 - 18	
97 14 96 15 0 — Tr<3 — CLAY (CL): stiff, dark brown, moist, fine grained, plastic 94 17 -	
96 15 95 16 - CLAY (CL): stiff, dark brown, moist, fine grained, plastic 94 17 - CLAY (CL): stiff, dark brown, moist, fine grained, plastic	MARKATA MARKAT
95 16 - CLAY (CL): stiff, dark brown, moist, fine grained, plastic	110000000000000000000000000000000000000
95 16 - plastic	000000 000000
93 18-	
92 19 0 0 — ND —	
89 22	
- 86 23 -	
87 24	
86 25	
85 26	
84 27	

DEPTH TO WATER: first Encountered (∑). At End of Drilling (∑):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 6, 1997 DRILLIG METHOD: Geoprobe DRILLED BY: Vironex

LOGGED BY: LLawhon CHECKED BY: MEFlack

ÖN, Æ	≠	불호	E NO.	LES	LOCATION: SURFACE EL: 110 ft.	DING (X)	g/kg	E, mg/kg	ehyde, kg	H B	ঠ (g	m &	, mg/kg
ELEVATION, A	ОЕРТН, #	MATERIAL SYMBOL	SAMPLE NO	SAMPLES	MATERIAL DESCRIPTIONS	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE mg/kg	Chloroform, mg/kg
109	1 - 2		mmnedanne.	A THE RESIDENCE AND AND AND AND AND AND AND AND AND AND	ARTIFICIAL FILL (AF) Gravely Sand (SP): medium dense, pale yellowish orange, dry, fine to coarse grained with gravel 1-inch diameter			MODES ACT ACT ACT ACT ACT ACT ACT ACT ACT ACT	A SPACE AND A SPAC				
107 106	3 - 4	The second secon			ALLUVIUM (Qal) Silty SAND (SM): medium stiff, moderate brown, moist, fine to medium grained								
105	5 6-	The second secon				0			10.1		490000		
103	යි 8 _අ	The Course of th						11 HOLD BEING AN AND BEING AN AND BEING AND AND AND AND AND AND AND AND AND AND	**************************************				
101	10- 11	The second secon				0			ND	_			
99 - 98	12 13-												
97	14 15	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Silty CLAY (CL): stiff, dark brown, moist, fine grained,	THE PROPERTY OF THE PROPERTY O	*****		ND				
95	16 ·				plastic			**************************************					
93 92 91	18 - 19 - 20 -					0			3	Aria-chilippensis			
90	21					0			3	*****	HOROGON		**********
89	22 -												
88	23												
87	24												
86	25 - 26												
84	20 27-			der der under der der der der der der der der der									

DEPTH TO WATER: first Encountered (学): At End of Drilling (字):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 25, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: LLawhon CHECKED BY: MEFlack

108 107 108		SYMBOL	SAMPLENO	SAMPLES	SURFACE EL: 110 ft.	PID READING (PPMV)	TPH, mg/kg	Щ	nakdehyo mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE mg/kg	E
109 108 107 106	1-3	W W	SAM	S			^_	- -	유연	⊕ 5	17 8	5 5	Ę
108 107 108	i		I		MATERIAL DESCRIPTIONS	A OIA	된	BENZENE, mg/kg	Formaldehyde, mg/kg	1, 1	 5	- -	Chloroform, mg/kg
107 106		Amendonium Amendonium	***************************************	- Annahad and a state of a state	ARTIFICIAL FILL (AF) Gravely Sand (SP): medium dense, pale yellowish orange, dry, fine to coarse grained with gravel 1-inch diameter								
	3			***************************************	ALLUVIUM (Qal) Silty SAND (SM); medium stiff, moderate brown, moist,								
400	4				fine to medium grained								
	5					0			ND			*********	
104	6		i										
	8												
- 102	9												
- 101 1	ا ۱۵		- Landa Andrea			0	_	_	ND	_			
100 1	11	Approximation of the control of the	Í										
99 1	12												
98 1	13												
97 1	14-												
96 1	15				City CLAY (CL) wife dad because and for against	0	-	-	12.3		*******	seem	
95 10	6-				Silty CLAY (CL): stiff, dark brown, moist, fine grained, plastic								Mar and a substitution of the
94 1	17 -												- decides A. M. M.
93 11	В-												A Auditoria
92 1	19-												
91 2	20 -					0	******		2.6				,
90 2	21												
- 89 2.	22-		***************************************										
88 2	23												
87 24	24	ininininininininininininininininininin											
86 2	25	and the same of th											
85 2	26	-											
84 2	27 -			**************************************									

DEPTH TO WATER:

first Encountered (¥):

At End of Drilling (E):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 25, 1997 DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: LLewhon

CHECKED BY: MEFlack
The log and data presented are a simplification of actual
condition encountered at the time of problem at the probad

<u> </u>			00000000000		LOCATION:			(7)					
ELEVATION, R	DЕРТН, R	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	SURFACE EL: 110 ft.	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
ELEV	DE	MA	SAM	SAN	MATERIAL DESCRIPTIONS	PID RI	Ħ	BENZE	Forma	 	2,1 E)		Chlorofo
109 108	1 - 2				ARTIFICIAL FILL (AF) Gravely Sand (SP): medium dense, pale yellowish orange, dry, fine to coarse grained with gravel 1-inch								
					diameter ALLUVIUM (Qal)								
107 - 106	3 4-				Silty SAND (SM): medium stiff, moderate brown, moist, fine to medium grained								
105	5-	1											
104	6					0	******	********	6.1			_	
103	8-												
102	9-	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
101	10			Ш		0	-		5.5				
100	11-	4							0.0				
99	12												
98	13-												
97	14												
96	15	200 PM				0		55-924.	7.6			_	_
- 95	16				Silty CLAY (CL): stiff, dark brown, moist, fine grained, plastic				,.0				
- 94	17 -				plastic								
93	18 -												
92	19-												
- 91	20 -					0			3.7			_	_
90	21			H									
- 89	22												
88	23												
87	24 -												
86	25												
85	26 -												
84	27-												
				Ш	21 5 ft								

COMPLETION DEPTH: 21.5 ft. DEPTH TO WATER:

first Encountered (\(\varPi\):

At End of Drilling (\(\varpi\)):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 24, 1997

DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: LLawhon
CHECKED BY: MEFlack

_					LOCATION:		***************************************	5					0)
ELEVATION, ft	DЕРТН, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	SURFACE EL: 110 ft.	PID READING (PPMV)	ТРН, тд/кд	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
		~	ŝ	0,	MATERIAL DESCRIPTIONS	ᇜ	F	BEN	For				Chlor
108 -106	2 4-				ARTIFICIAL FILL (af) Fine SAND with gravel (SM): loose,, brown to light brown, with concrete debris, moist, no odors or visible stainning	_							
104	6-		1-5		Alluvium (Qal) Silty fine SAND (SM): dense, brown to dark brown, moist, no odor or stainning	17	ND	ND		ND	ND	ND	ND
102 -100	8- 10-				dark blown, moist, no oddr dr stamming								
98	12		1-10			15.6	ND	ND		ND	ND	ND	ND
96	14-												
94	16		1-15			12.7	ND	ND		ND	ND	ND	ND
92	18												
90	20-		1-20			36.2	ND	ND		ND	ND	ND	ND
- 88	22					JU.2	140	140		140	140	IND	140
86	24				Fine SAND (SP): loose, brown to light brown, very moist, no odors or visible stainning								
84	26		1-25		Silty fine SAND (SM): loose, dark brown, very moist,	27.5	ND	ND		ND	ND	ND	ND
- 82	28-				no odors or visible stainning								
80 78	30 -		1-30			21.4	ND	ND		ND	ND	ND	ND
76	32 34 -				CLAY (CL): stiff, light brown to olive brown, very moist,								
74	36		1-35		no odors or visible stainning	17.7	ND	ND		ND	ND	ND	ND
72	38					17.7	ND	NU		ND	טאו	טאו	מא
70	40 -	4,9	1-40										
68	42			L.		19.9	ND	0.0078		ND	ND	ND	ND
66	44 -				Fine sndy CLAY (CL): stiff, brown to dark brown, very	-							
64	46		1-45		moist, no odors or visible stainning	17.5	ND	80.0		ND	ND	ND	ND
62	48												
- 60	50												
59	52												

DEPTH TO WATER: first Encountered (\(\varphi\)): At End of Drilling (\(\varphi\))

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 13, 1997 DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: JRCook
CHECKED BY: MEFlack

- e=					LOCATION:		 	Ř					Ē.
ELEVATION, R	DEPTH, A	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	SURFACE EL: 110 ft.	PID READING (PPMV)	ТРН, тд/кд	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE mg/kg	Chloroform, mg/kg
ELE	۵	≩ ∽	SAI	3	MATERIAL DESCRIPTIONS	<u>a</u>	բ	BENZ	Гол	-) 	-	Chloro
108	2 - 4				ARTIFICIAL FILL (af) Fine SAND with gravel (SM): loose,, brown to light brown, with concrete debris, moist, no odojs or visible stainning								Parket cut control con
104	6 8	- X X X X X X X X X X X X X X X X - X	2-5	.0500.A.	Alluvium (Qal) Fine SAND (SM): loose, yellowish brown to light brown, moist, no odor or stainning	15.2	0.56	ND	historia	ND	ND	ND	ND
-100 -96	10- 12	Part Control	2-10		Fine silty SAND (SM): loose, brown to dark brown, moist, no odor or stains	15.6	ND	ND		ND	ND	ND	ND
- 96 94	14		2-15			14.2	0.82	ND		ND	ND	ND	ND
- 92 - 90	18 20-		2-20		Fine clayey SAND (SC): dense, brown to dark brown, moist, no odor or stains			The state of the s					Andrew Advance of the City of
- 88 86	22 - 24 -		z-zu		Fine SAND (SP): loose, brown to light brown, very moist, no odors or visible stainning	20.1	6.7	ND	*****	ND	ND	ND	ND .
84	26 -	J-1888	2-25		-	16.8	2	ND	Name of Street	ND	ND	ND	ND
82	28 30 -		2-30		Fine silty SAND (SM): loose, brown to dark brown, very moist, no odor or stains	16.2	1.5	0.13		ND	ND	ND	ND
78 - 76	32				Fine Clayey SAND (SC): stiff, brown to dark brown, very moist, no odor or stains								
74	36 38	у	2-35		•	13.4	ND	ND	200000	ND	ND	ND	ND
70 -68	40 42-		2 -4 0		Fine SAND (SP): loose, yellowish brown to light brown, very moist, no odors or visible stainning	14.6	ND	0.0063		ND	ND	ND	ND
66 - 64	44		2-45		Fine sndy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning	12.6	0.74	0.021		ND	ND	ND	ND
62	48 -												Alian de Alanda
60 - 59	50 52-												

DEPTH TO WATER: first Encountered (₹): At End of Drilling (₹):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 13, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Vironex LOGGED BY: JRCook CHECKED BY: MEFlack

				LOCATION:			9					5
≡РТН, п	ATERIAL YMBOL	WPLE NO.	MPLES	SURFACE EL: 110 ft.	READING PPMV)	н, та/ка	ENE, mg/h	naldehyde, mg/kg	,1DCE mg/kg	,2 DCA mg/kg)	TCE mg/kg	Chloroform, mg/kg
۵	ΣS	SAI	ŝ	MATERIAL DESCRIPTIONS	00	<u>E</u>	BENZ	Forn			•	Chloro
2- 4-				ARTIFICIAL FILL (af) Medium SAND with gravel (SM): loose, brown to light brown, with concrete debris, moist, no odors or visible staining								
6 8		2-5		ALLUVIUM (Qal) Fine silty SAND (SM): loose, brown to dark brown, moist to very moist, no odor or stains	11.4	ND	ND		ND	ND	ND	ND
10 12-	2 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2-10		Slight petroleum odor at 10 ft.	43.0	ND	ND		ND	ND	ND	ND
14-	<u> </u>	2-15			42.3	ND	ND		ND	ND	ND	ND
18-										_		
20	8 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	2-20		Strong to very strong petroleum odor at 20 ft.	1,742	4200	ND	_	ND	ND	ND	ND
24												
26 - 28		2-25			451	210	ND	_	ND	ND	ND	ND
30 -		2-30		Fine sndy CLAY (CL): stiff, brown to dark brown, very moist, moderate petroleum odor with no visible stainning	134	1.5	1.1		ND	ND	ND	ND
32 34				Fine silty SAND (SM): loose, brown to dark brown, very moist, slight to moderate petroleum odor with								
36 - 38 -		2-35		no stains	25.3	0.58	ND		ND	ND	ND	ND
		2-40		Fine sandy SILT (ML): soft, brown to darkbrown, very moist, slight petroleum odor with no stainning	20.2	10	0.0055		NID	ND	ND	ND
42 44 -				▽	20.3	1.0	0.0033	_	ND	NU	טויו	טאו
46 -		2-45		Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning	56.4	2	0.22		ND	ND	ND	ND
48 - 50												
52-												
	HLdGO 22-44-66-88-100-12-14-16-18-20-22-24-26-28-33-40-42-44-46-50-48-50-18-18-18-18-18-18-18-18-18-18-18-18-18-	HATERIA MATERIA SYMBO	2 - 2 - 5 - 8 - 2 - 10 - 12 - 1 - 16 - 2 - 15 - 18 - 2 - 20 - 22 - 24 - 26 - 2 - 25 - 28 - 30 - 2 - 30 - 32 - 34 - 36 - 3 - 2 - 35 - 38 - 40 - 42 - 44 - 46 - 2 - 45 - 48 - 50	2	ARTIFICIAL FILL (af) Medium SAND with gravel (SM): loose, brown to light brown, with concrete debris, moist, no odors or visible staining ALLUVIUM (Qal) Fine silty SAND (SM): loose, brown to dark brown, moist to very moist, no odor or stains Slight petroleum odor at 10 ft. Strong to very strong petroleum odor at 20 ft. Fine sndy CLAY (CL): stiff, brown to dark brown, very moist, moderate petroleum odor with no visible stainning Fine silty SAND (SM): loose, brown to dark brown, very moist, slight to moderate petroleum odor with no stains Fine sandy SILT (ML): soft, brown to darkbrown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to darkbrown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to darkbrown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, slight petroleum odor with no stainning	ARTIFICIAL FILL (af) Medium SAND with gravel (SM): loose, brown to light brown, with concrete debris, moist, no odors or visible stainning ALLUVIUM (Oal) Fine sity SAND (SM): loose, brown to dark brown, moist to very moist, no odor or stains Slight petroleum odor at 10 ft. 2-15 ALLUVIUM (Oal) Fine sity SAND (SM): loose, brown to dark brown, moist to very moist, no odor or stains Slight petroleum odor at 10 ft. 42.3 ASTIFICIAL FILL (af) Medium SAND with gravel (SM): loose, brown to dark brown, moist to very moist, no odor or stains Slight petroleum odor at 10 ft. 43.0 42.3 Fine sndy CLAY (CL): stiff, brown to dark brown, very moist, moderate petroleum odor with no visible stainning Fine sity SAND (SM): loose, brown to dark brown, very moist, slight to moderate petroleum odor with no stainning Fine sandy SILT (ML): soft, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning	SURFACE EL: 110 ft. 2	SURFACE EL: 110 ft. ARTIFICIAL FILL (af) Medium SAND with gravel (SM): loose, brown to light brown, with concrete debris, moist, no odors or visible staining ALLUVIUM (Cal) Fine sity SAND (SM): loose, brown to dark brown, moist to very moist, no odor or stains Slight petroleum odor at 10 ft. 42.3 ND ND ND Strong to very strong petroleum odor at 20 ft. 7,742 4200 ND Fine sity SAND (SM): loose, brown to dark brown, very moist, moderate petroleum odor with no visible staining 2-30 Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, slight to moderate petroleum odor with no staining 2-45 Fine sandy SILT (ML): soft, brown to dark brown, very moist, no odors or visible stainning 56.4 2 0.22	SURFACE EL: 110 ft. ARTIFICIAL FILL (af) Medium SAND with gravel (SM): loose, brown to light brown, with concrete debris, moist, no odors or visible stainning ALLUVIUM (Cal) Fine sity SAND (SM): loose, brown to dark brown, moist to very moist, no odor or stains Slight petroleum odor at 10 ft. Strong to very strong petroleum odor at 20 ft. Fine sndy CLAY (CL): stiff, brown to dark brown, very moist, moderate petroleum odor with no stainning Fine sandy SILT (ML): soft, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy SILT (ML): soft, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy SILT (ML): soft, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, slight petroleum odor with no stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning Fine sandy CLAY (CL): stiff, brown to dark brown, very moist, no odors or visible stainning	Surface Surf	Value Valu	### Hand Surface 110 ft. Surface 110 f

COMPLETION DEPTH: 46.5 ft. DEPTH TO WATER: 44 ft.

first Encountered (\(\varphi\):
At End of Drilling (\(\varphi\)):

BACKFILLED WITH: Bentonite Chips DRILLING DATE: February 13, 1997

DRILLIG METHOD: Geoprobe
DRILLED BY: Vironex
LOGGED BY: JRCook
CHECKED BY: MEFlack

ELEVATION, R	ВЕРТН, А	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: MATERIAL DESCRIPTIONS	Monitoring Well Construction	PID READING (PPMV)	ТРН, тg/kg	BENZENE, mg/kg	Formaldehyde.	1, fDCE mg/kg	1,2 DCA (mg/kg)	, mg/kg	Chloroform, mg/kg
	2 - 4 - 6 - 8 10 - 12 - 14 - 16 - 22 24 - 28 30 - 32 34 - 36 38 - 40 - 42 - 44 - 48 - 48 - 48 - 48 - 48 - 48				ARTIFICIAL FILL (af) Gravely SAND (SP): medium dense, pale orange, dry, fine to medium grained, with gravels 1.5-inch diameter ALLUVIUM (Qal) Silty SAND (SM): medium dense, moderate brown, moist, fine to medium grained CLAY (CL): medium stiff, dark brown, plastic Medium SAND (SP): medium dense, moderate brown, moist, Silty CLAY (CL): medium stiff, dark brown moist CLAY (CL): stiff, dark brown, moist, plastic Medium SAND (SW): dense, dark brown moist, Sandy CLAY (CL): stiff, dark brown, wet, fine to medium grained									O
- Transfer of the second secon	50 - 52 -				Sifty SAND (SM): loose, dark brown, wet, fine to medium grained		0	TOTAL TO TOTAL COMMENTANT COMMENT						

COMPLETION DEPTH: 70.0 ft. DEPTH TO WATER: 44 ft.

ñrst Encountered (∑): At End of Drilling (坚):

BACKFILLED WITH: 4.0-inch Diameter PVC DRILLING DATE: February 12, 1997

ORILLED BY: Valley Wel

DRILLED BY: Valley Well LOGGED BY: LLawhon CHECKED BY: MEFlack

¢Ľ					LOCATION:	İ	(D	00011700000001000	λg	aī.				Ď,
ELEVATION, R	ОЕРТН, п	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	SURFACE EL:	Monitoring Well Construction	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
ELE	<u></u>	MA	SAN	δ	MATERIAL DESCRIPTIONS	Construction	A CIR	<u> </u>	BENZ	Form	<u></u>	1, (r	-	Chlorof
-	56 -													
	58-													
	60-													
	62													
	64-													
	66 ·					: = .								
-	68 -													
	70					i i								
	72													
	74-													
	76													
	78													
	80													
	82					İ								
	84 -					İ								
	86													
	88													
	90 -					i !								
	92					1								
	94					1								
	96 -					!								
	98 00 -					!								
1	00					ı								
	04													
	06 -													
	UU "				40.50									

COMPLETION DEPTH: 46.5 ft. DEPTH TO WATER: 44 ft. first Encountered (¥):

At End of Drilling (▼):

BACKFILLED WITH: 4,0-inch diameter PVC Well

DRILLING DATE: February 13, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Valley Well LOGGED BY: LLawhon CHECKED BY: MEFlack

#	at≓	٠, ا	oj.	S	LOCATION:		စ္ခ	9	ng/kg	de,	19910100011111111111111111111111111111	900490000000000		g/kg
ELEVATION, ft	оертн, п	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	SURFACE EL:	Monitoring Well Construction	PID READING (PPMV)	ТРН, тд/кд	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chloroform, mg/kg
Ш	Q	ΣS	SA	Ś	MATERIAL DESCRIPTIONS	Construction	OI4	T .	BEN?	For			-	Chloro
	2- 4-				ARTIFICIAL FILL (af) Gravely SAND (SP): medium dense, pale orange, dry, fine to medium grained, with gravels 1.5-inch diameter	-								
	6 8-			_	ALLUVIUM (Qal) Silty SAND (SM): medium dense, moderate brown, moist, fine to medium grained		0							
	10						0							
	14- 16 18-				CLAY (CL): medium stiff, dark brown, plastic		0							
	20- 22						0							
-	24 - 26 - 28				Silty CLAY (CL): medium stiff, dark brown moist	7	0							
	30 - 32				Silty SAND (SM): medium dense,		0							
	34 - 36 -	The second secon			moderate brown, moist, fine to medium grained CLAY (CL): medium stiff, dark brown, plastic	_	0							
	38 - 40 - 42 -						0							
-	44 - 46 -				Silty CLAY (CL): medium stiff, dark brown moist		0							
-	48 - 50 -	The second secon			Silty SAND (SM): loose, dark brown,	- =	0							
COMP	52 -				wet, fine to medium grained						***************************************			

COMPLETION DEPTH: 70.0 ft. DEPTH TO WATER: 44 ft.

first Encountered (\(\varphi\)).
At End of Drilling (\(\varphi\)):

BACKFILLED WITH: 4.0-inch Diameter PVC DRILLING DATE: February 12, 1997

DRILLIG METHOD: Geoprobe
DRILLED BY: Valley Well
LOGGED BY: LLawhon
CHECKED BY: MEFlack

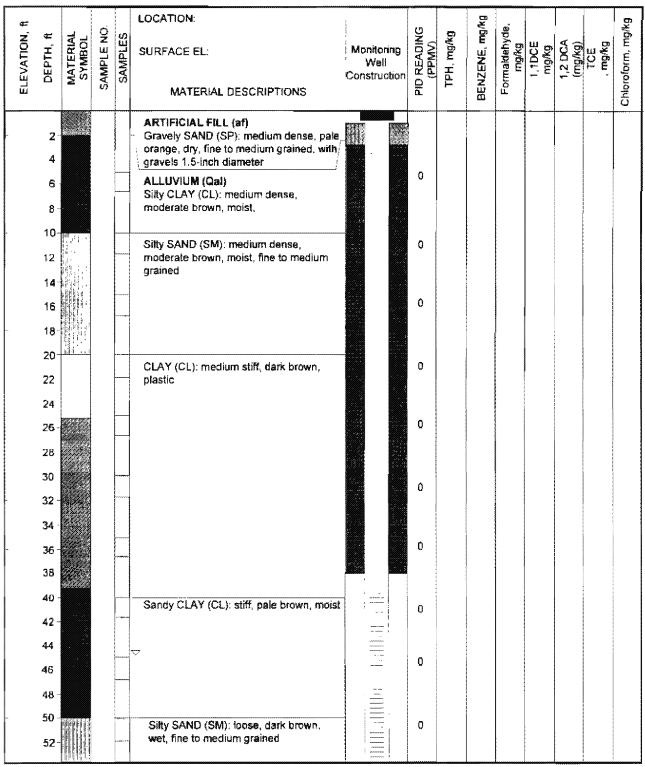
ELEVATION, ft DEPTH, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL: MATERIAL DESCRIPTIONS	Monitoring Well Construction	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE . mg/kg	Chloraform, mg/kg
56 58- 60- 62- 64- 66- 68- 70- 72- 74- 76- 78- 80- 82- 84- 86- 88- 90- 92- 94- 96- 98- 100- 102- 104- 106-													

COMPLETION DEPTH: 46.5 ft. DEPTH TO WATER: 44 ft. first Encountered (⊻): At End of Drilling (▼):

BACKFILLED WITH: 4.0-inch diameter PVC Well

DRILLING DATE: February 12, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Valley Well LOGGED BY: LLawhon CHECKED BY: MEFlack



COMPLETION DEPTH: 70.0 ft. DEPTH TO WATER: 44 ft.

first Encountered (≚): At End of Drilling (₹):

BACKFILLED WITH: 4.0-inch Diameter PVC DRILLING DATE: February 13, 1997

DRILLIG METHOD: Geoprobe
DRILLED BY: Valley Well
LOGGED BY: LLawhon
CHECKED BY: MEFlack

ELEVATION, ft	ОЕРТН, ft	MATERIAL SYMBOL	SAMPLE NO.	SAMPLES	LOCATION: SURFACE EL:	Monitoring Well	PID READING (PPMV)	TPH, mg/kg	BENZENE, mg/kg	Formaldehyde, mg/kg	1,1DCE mg/kg	1,2 DCA (mg/kg)	TCE , mg/kg	Chlaroform, mg/kg
ELEV	DE	MA	SAN	SA	MATERIAL DESCRIPTIONS	Construction	PID R	춉	BENZE	Form		2.5	-	Chlorofe
	56													
	58	A CONTRACTOR												
	60-													
	62 64-													
	66-													
	68-	100 V												
	70	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1												
	72													
-	74-													
-	76-													
	78-													
	80													
	82													
	84 -													
	86 - 88 -													
-	90 -													
-	92 -													
	94													
	96					•								
	98													
	100 -					:						ľ		
	102 -													
	104													
	106					ı								

COMPLETION DEPTH: 46.5 ft. DEPTH TO WATER: 44 ft.

DEPTH_TO_WATER: 44 f first Encountered (¥): At End of Drilling (▼):

BACKFILLED WITH: 4.0-inch diameter PVC Well

DRILLING DATE: February 13, 1997

DRILLIG METHOD: Geoprobe DRILLED BY: Valley Well LOGGED BY: LLawhon CHECKED BY: MEFlack



APPENDIX F

SCREENING LEVEL ESTIMATES AND CALCULATIONS



APPENDIX F SOIL CLEANUP LEVEL ESTIMATES

Table 4-1 - Maximum Screening Levels (mg/kg) for TPH and BTEX Above Drinking Water Aquifers, and Table 5-1 - Average Attenuation Factors for Different Distances Above Ground Water and Lithology, and the methods described in Appendix A - Attenuation Factor Methods for VOCs in the RWQCB May 1996 document, were used to establish the screening levels for the COCs. The screening level estimates were calculated using a depth to ground water of 45 feet bgs. In calculating the attenuation factor, the soil makeup separating the COCs and the groundwater was interpreted to be 50 percent sand and 50 percent clay. Boring logs for exploratory soil borings drilled in support of the risk assessment were used, along with logs from previous assessment programs (see Appendix E). Linear interpolation of the published criteria on Table 4-1 and 5-1 were used to establish an attenuation factor for each 5-foot-separation to groundwater, and establish the screening level estimates for the petroleum hydrocarbons. Screening level estimates were provided for those VOCs or other COCs that were reported by the laboratory in the soil samples collected during the closure and post-closure sampling.

The 1,2,4 and 1,3,5 TMB have no published toxicity information or State MCL from which to draw a PRG or calculate a screening level value. An approximation of the MCL of 1.75 µg/l was used in the screening level calculations for TMB. This value was selected because of the molecular resemblance of TMB to xylene, and the assumed similar structure activity.

Calculate, using the attenuation factor method described in the RWQCB document "Interim Assessment and Cleanup Guidebook," Appendix 4 - Attenuation Factor Method for VOCs, screening level values for:

- Chloroform
- Methylene chloride
- 1,2,4 Trimethylbenzene
- 1,3,5 Trimethylbenzene
- Chloride
- Ammonia

- TCE
- 1,1-DCA
- Dichlordifluoromethane
- Naphthalene
- MBAS
- Formaldehyde

EXAMPLE CALCULATION VOCs AND OTHER AOCs

Assumptions:

- Ground water is at 45 feet bgs
- There is a 30-foot separation between the COCs and ground water.
- The separating lithology is 50 percent sand and 50 percent clay.

Attenuation Factor Method:

Sand, 30 feet above ground water after RWQCB, 1996 pp A-10 and Table 5-1.

$$\left(\frac{30-20}{40-20}\right) * (3-1)+1=2$$

Clay, 30 feet above ground water after RWQCB, 1996, pp A-10 and Table 5-1.

$$\left(\frac{30-20}{40-20}\right) * \left(26-13\right) + 13 = 19.5$$

For soil 50 percent sand and clay:

• (50% * 2) + (50% * 19.5) = 10.75 voc AttenuationFactor

Therefore, the screening level value = COC, MCL * AF (10.75)



coc	MCL (Mg/L)	AF	Screening Level (mg/kg)
Chloroform	0.100	10.75	1.075
Methylene Chloride	0.005	10.75	0.054
1,2,4 TMB	1.75	10.75	18.8
1,3,5 TMB	1.75	10.75	18.8
Chloride	250	10.75	2688
Ammonia	45	- 10.75	484
MBAS	0.5	10.75	5.4
Formaldehyde	5.5	10.75	59.1
TCE	0.005	10.75	0.05
1,1-DCA	0.005	10.75	0.05
Dichlorodifluoromethane	0.39	10.75	4,19
Naphthalene	0.02	10.75	0.22

EXAMPLE CALCULATION BTEX

Calculate the screening levels for BTEX compounds by interpolation of prescribed RWQCB values contained in Table 4-1 - Maximum Screening Levels for TPH and BTEX Above Drinking Water Aquifers.

Assumptions:

- Ground water is at 45 feet bgs;
- There is a 30-foot separation between the COCs and ground water;
- The separating lithology is 50 percent sand and 50 percent clay.

Benzene (mg/kg)

For sand:

$$\left(\frac{30-20}{80-20}\right) * (0.033-0.011) + 0.011 = 0.015$$



For clays:

$$\left(\frac{30-20}{80-20}\right) * (0.34*0.044) + 0.044 = 0.093$$

$$(50\% * 0.015) + (50\% * 0.093) = 0.054$$
 Benzene

Toluene (mg/kg)

For sand:

$$\left(\frac{30-20}{80-20}\right) * (2-0.3) + 0.3 = 0.58$$

For clay:

$$\left(\frac{30-20}{80-20}\right) * (18-2.3) + 2.3 = 4.92$$

$$(50\% * 058) + (50\% * 4.92) = 2.75 Toluene$$

Ethylbenzene (mg/kg)

For sand:

$$\left(\frac{30-20}{80-20}\right) + \left(7-0.7\right) + 0.7 = 1.75$$

For clay:

$$\left(\frac{30-20}{80-20}\right) * (73-9) + 9 = 19.7$$

$$(50\% * 1.75) + (50\% * 19.7) = 10.7$$
 Ethylbenzene



Xylenes (mg/kg):

For sand:

$$\left(\frac{30-20}{80-20}\right) * \left(20-1.75\right) + 1.75 = 4.79$$

For clay:

$$\left(\frac{30-20}{80-20}\right) * \left(200-24.5\right) + 24.5 = 53.75$$

$$(50\% * 4.79) + (50\% * 53.75) = 29.3$$
 Xylenes